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LONDON, SATURDAY, AUGUST 11, 1894.

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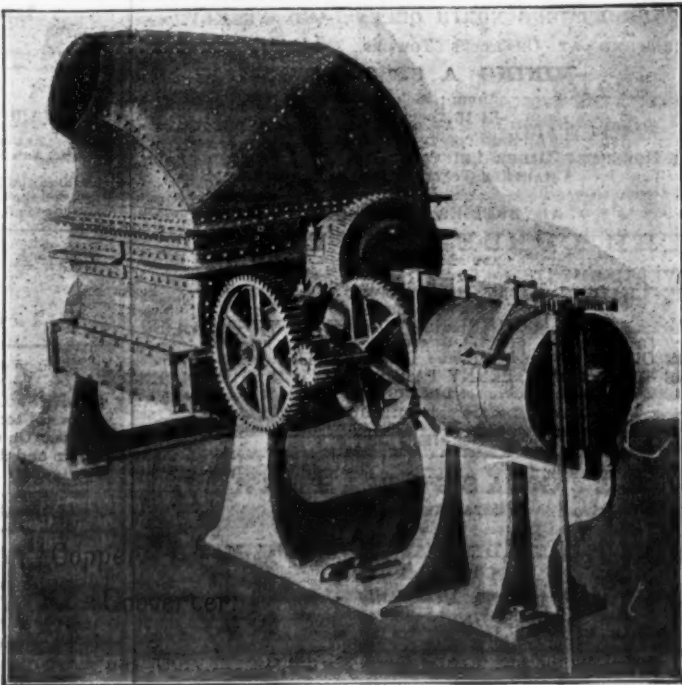
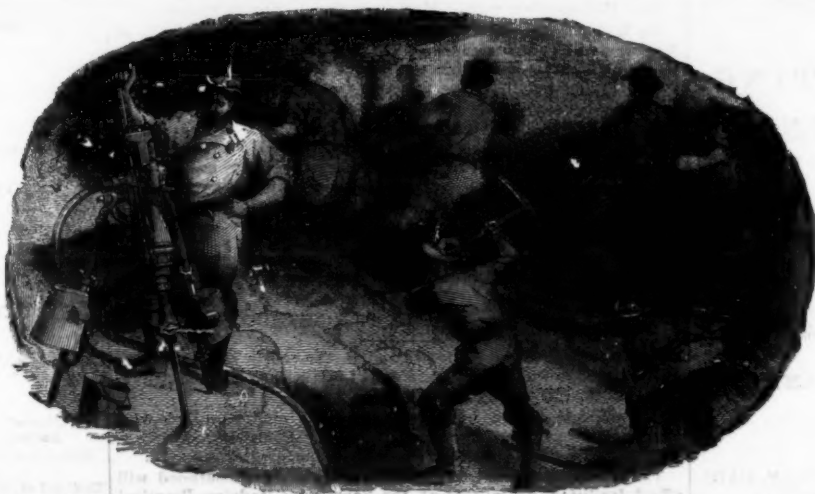
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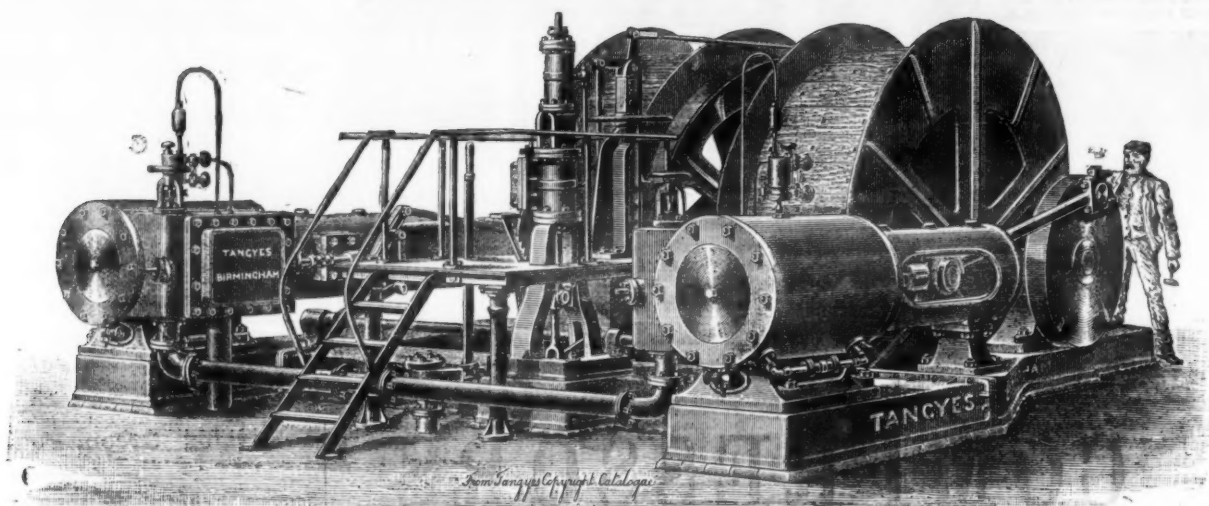
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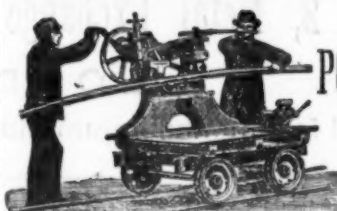
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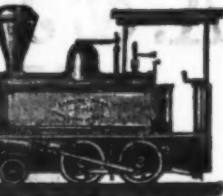
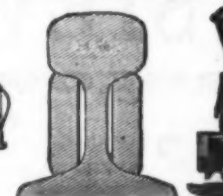
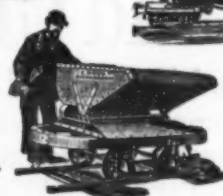
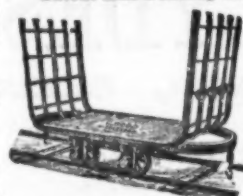
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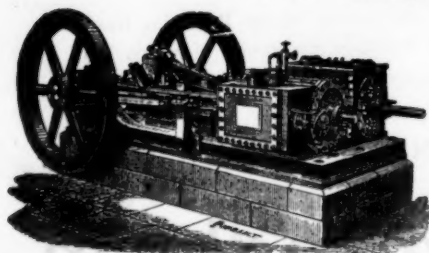
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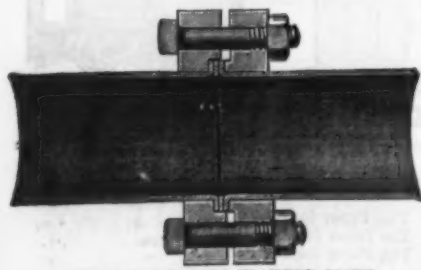
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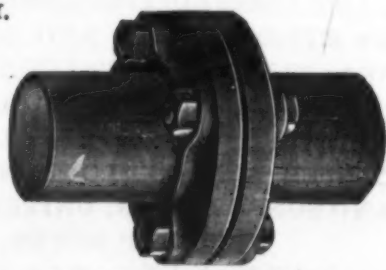
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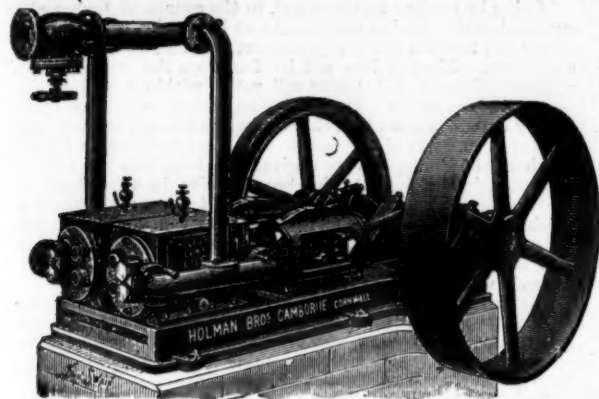
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Highest Award,
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Contest, 1881.

Three Makers
represented.



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SILVER MEDAL
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Royal Cornwall
Polytechnic
Jubilee Exhibition
Contest, 1882.

Five Makers
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RECORD OF WORK DONE

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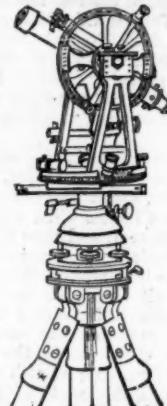
At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

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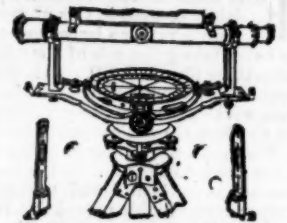
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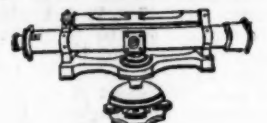
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Trough Compass.



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and Patent Hoffman Tripod Head.



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THE CLARKSON-STANFIELD CONCENTRATOR (LIMITED),

Treating the ores of Gold, Silver, Copper, Lead, Tin, Zinc, Cobalt, &c., &c. of all degrees of fineness, from 30 to the finest meshes by their **NEW MACHINERY** which may be seen in operation at

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Homogeneous substances, such as Emery, Glass, Sand, Sulphur, Black Lead, &c., graded according to size in one operation.

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NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

- 14088 George Archer and Arthur Dury Mitton, Newcastle Chambers, Nottingham.—A safety appliance for pit hoist and other cages guided by slides.—July 23.
- 14090 Thomas Woodward, 83, York Street, Nottingham.—Improvements in and connected with furnace fire bars.—July 23.
- 14099 Ashton Burgess, Prospect House, Coalbrookdale, Shropshire.—Improvements in steam engines.—July 23.
- 14127 James Hazel Adamson, 115, Cannon Street, London.—Improvements in and relating to rotary engines.—July 23.
- 14186 John J. mes Hood, Chancery Lane, London.—Improvements in extracting metals.—July 23.
- 14173 Reece B. Rigby, Ditton, Widnes.—Improved exhaust steam pipe condenser.—July 24.
- 14181 William Watson, Glasgow.—Improvements in packing for piston rods, stuffing boxes, and the like.—July 24.
- 14314 Julius Brunn, 73, Chancery Lane, London.—Improvements in feed water purifying apparatus for steam boiler.—July 25.
- 14315 Joseph Fregardien, 183, Allee des Barmen, Germany.—Improvements in steam boilers.—July 25.
- 14344 Charles H. race Banton, 46, St. Michael's Road, Leeds.—Steam packing rings.—July 25.
- 14385 John Alexander McMullen, 124, Chancery Lane, London.—Improvements relating to gas engines.—July 26.
- 14392 Lucien Charles Ernest Meyer, London.—Improved apparatus for stopping engines.—July 26.
- 14397 Alfred Friedhey, London.—An improved coal dust feeder for furnaces.—July 26.
- 14423 John Wild.—Improvements in air compressing and pumping engines.—July 27.
- 14425 Charles Richard Roberts "Iona," Market Street, Poole, Dorset.—An improved gas engine or oil engine.—July 27.
- 14476 Charles Henry Bryant, 1, Broad Street Buildings, Liverpool Street, London.—A new or improved vapour or gas motor engine.—July 27.
- 14487 Douglas Clerk, London.—Improvements in gas and like engines.—July 27.
- 14528 Carl Gustav Patrik de Laval London.—Improvements in governors or steam motors.—July 28.

SPECIFICATIONS PUBLISHED.

13,133, McLean, electro-magnetic switch, 1893; 13,148, Radonovic, steam, &c., engines, 1893; 13,579, Austin, steam engines, 1893; 15,029, Cooke, steam governors, 1893; 6963, Deutscher, 1894; 8028, Morris, miners' lamps, 1894. The above specifications published may be had of Messrs. Rayner and Company, 37, Chancery Lane, London, at 10s. each including postage.

THE mining reporter of the *Coolgardie Miner*, in a long report on Bayley's Reward, says:—"There are 4000 tons at grass that will mill from 3 ounces to 5 ounces to the ton." In describing the 100 feet level he says:—"The stopes in the 100 feet level display some of the finest gold-bearing stone that has ever been found in Australia. Gold hung in glittering particles from the ore all around me. So rich is this stuff that whilst breaking the ground the men lay down a canvas catchment to receive the rich gold that falls in flakes, and beads and specimens, through the vibration caused by the pick of the miner."

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

"We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given."

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Groynes, August 14 (Dover).—For the construction and repair of two groynes and cast-iron storm-water outfall at East Cliff, for the Town Council. Plans may be seen and specifications and forms of tender obtained at the office of Mr. B. Wollaston Knocker, town clerk, Dover.

Coal, August 18 (Wigton).—For the supply of about 800 tons of washed nuts or gas coal for one year ending August 31st, 1895, for the Wigton Gaslight and Coke Company (Limited).

Pumping Station, August 20 (Glasgow).—For erection of a hydraulic pumping station at Cessnock Dock, Glasgow, for the trustees of the Clyde Navigation. Plans, sections, and specifications may be seen on and after 8th inst. at the office of Messrs. John Burnet, Son, and Campbell, architects, 167, St. Vincent Street, from whom schedules can be obtained on payment of £1, which will be returned on receipt of a bona fide tender.

Underframes, August 21 (India Office, S.W.).—The Secretary of State for India in Council is prepared to receive tenders to supply underframes, &c. Conditions of contract to be obtained on application to the Director-General of Stores, India Office, Whitehall, S.W.

Sinking Well, August 25 (Workop).—For sinking a well, 180 feet by 9 feet, and containing a 15 inch by 12 inch borehole, to 380 feet, for the Workop Waterworks Company. Plans, sections, and specifications, and other particulars may be obtained at the office of the engineer, Mr. John Allsopp, A.M.I.C.E., Workop. Sealed tenders, endorsed "Tenders for Well," to be sent to Mr. B. Dowse, Secretary, by 25th inst.

Shaft Sinking (Sheffield).—The Sheffield Coal Company invite tenders for the sinking of a 16 feet ventilating shaft 250 yards to the Silkstone seam. Specifications, section, &c., to be had on personal application to Mr. Walters, the manager.

Fencing (Edinburgh).—For the erection of a march fence between the farms of Dail and Barro, on Loch Elvie, Argyleshire. Specifications to be obtained on application to Mr. Dunn, Breadalbane Estate Office, Kenmore, or from Messrs. J. and F. Anderson, W.S., 48, Castle Street, Edinburgh.

THE IRON AND STEEL INSTITUTE.—His Majesty the King of the Belgians has invited the members of the Iron and Steel Institute (who, as already announced, will hold their autumn meeting in Belgium this year) to a reception at the Palace in Brussels on the evening of August 22nd. On the occasion of the visit to Liege on the 23rd, the members are invited to lunch at the Jardin d'Acclimation by the Liege and Mons Societies of Engineers. At Charleroi, on August 24th, the members will be divided into three groups, visiting in the morning the Mariemont and Bascoup Collieries, the Baume Iron Works, the Warpent Engineering Works, and the Mariemont Glass Works; in the afternoon the Marcinelle and Couillet Steel Works, and Marchienne and Sacre Madame Collieries.

OUR INQUIRY COLUMN.

TO CORRESPONDENTS.

Correspondents will please take note that all communications will in future be answered in this column and not through the medium of the post. All questions and replies should be accompanied by the name and address of the writer.

REPLIES.

- W. M.—They are not suitable for your purpose.
- ANXIOUS.—Under the circumstances we think it would be better for you to wait until after the meeting.
- W. J. S.—In view of the severe falling off in the dividend we do not advise a speculative purchase.
- B. W.—We cannot recommend a purchase for investment purposes.
- X. Y. Z.—We do not look for an improvement in either.
- J. B.—We are unable to carry out your suggestion.
- G. F.—Neither of the meetings will be held in London.
- TIM.—We cannot advise you to purchase any of these shares at present.

MATABELELAND GOLD PROSPECTS.

Dalsiel's correspondent at Cape Town, writing on July 18, sends the following:—

Telegrams received by the Chartered Company from Salisbury and Bulawayo indicate that much work is being done in the development of the country. In the Bulawayo district the number of gold claims registered to date is 12,000. Asbestos has been discovered in the district, the fibres being about a foot long, and the locality is now being thoroughly prospected and developed. Coal has also been found and large areas located. Mr. Tom Morgan has pegged off Tabax, Induna Mountain, 12 miles from Bulawayo, as a coal property. The company are taking steps to have the country thoroughly tested.

A telegram received from a correspondent at Bulawayo reports that the Bulawayo Building Society's £100 shares are at £15 premium. The Zambesia Engineering Company are despatching from Bulawayo this week two ingots of gold, the first obtained in Matabeleland. Telegraphic despatches received from Salisbury state that mining is being actively prosecuted, and a large number of prospectors have returned to work. Susman's battery is crushing a reef called "A. W. Workings" on their property. At Victoria during the past fortnight 170 claims have been registered. The Exploring Company has pegged off 70 claims. On the Balmoral extension the reef has been traced throughout; the ore is rich, and development is to be commenced forthwith. Good reports from the Umfali district assert that a battery is started, and is crushing ore from the Matchless and adjacent mines.

On Lipbert's Concession five distinct reefs, averaging from 2 to 4 feet wide, have been discovered all containing a fair share of gold.

NEW CROCUS GOLD MINING COMPANY.

By H. BUSH, M.E.

FOR some undefined reason a great deal of interest has been lately centred in this property. The capital of the company is rather a large one—namely, £225,000, and the cash in hand, taking the sale of the reserve shares, would amount to something like £80,000. All this, and probably more, will be required to properly develop the mine, erect the necessary surface works and the battery. The extent of the ground owned by the New Crocus covers 69 claims.

The south reef, so far as it has been opened up, is only worth a few dwts. to the ton. It is a body of ore 2 to 4 feet wide, and has not as yet been found payable, but the south reef leader is very rich and highly payable. It is 2 to 4 inches wide, and in some places comes together with the south reef, and then 2 feet of the south reef is also milled with the leader. The main reef, unlike any other mine on the Rand, is the best reef on this property. It is 7 to 14 feet wide, milling all through 9 dwts. to the ton, and may be said to be highly payable for such a large body of ore. But this reef is only payable on the eastern boundary for a distance of four or five claims along the line of reef. The shoot of ore which is thus proving so rich dips south-east into Langlaagte Block B, making the length of payable ore narrower as depth is attained—that is, that at a depth of 700 or 800 feet vertical shafts going down would strike the poorer ground, which is very barren coming from the west. This serves to show that the high grade ore in this portion of the main reef on the New Crocus ground will not last very many years. The poorer ground will then have to be worked. The shafts now being sunk and the ore now being developed are in this rich shoot, whilst the western or barren end of the property is being left severely alone.

From the vertical shaft and for a distance of 600 feet west the south reef leader has been opened up, carrying very good gold. The south reef itself has practically no value whatever. The mine is very backward in development, and the management will have to work hard to be ready for milling with the new 60 stamp battery which is to be erected and in working order by the end of the year. This end of the mine may be expected to give all through about 7½ dwts. to the ton over the plates, with about 4 dwts. to the ton in the tailings. Taking the working expenses at a fair average, a monthly profit may be anticipated of about £3000 a month after the new battery has started. This is not much for a mine that is now working its rich shoots of ore which, in a comparatively short time will give out, and taking into consideration the large capital of the company, a great deal of stress is being put on the respectable amount of working capital in hand, some £80,000. But this working capital will dwindle down almost to vanishing point when it is remembered that the mine has still to be developed, which, in itself, is a big item, that the mill has yet to be bought, that new hauling gear will have to be purchased, the present gear not being strong enough for future work, and that a good rock drill plant will have to be purchased, besides all the workshops which are required for a large mine.

By the end of the year, when crushing operations are expected to be commenced, there will not be much working capital left. It is often said that such-and-such stocks have good crowds behind them, and in this way the public are often misled. Because Primroses and Langlaagte Royals are good, it does not follow that New Crocus shares are good at present prices, although dominated by the same crowd. The New Crocus has still to make its mine, and erect its surface works. It has money (all of it will be wanted) to do it, but it must not be placed in the same category as other mines just mentioned, which are now in full swing. Taking the line of country in which the New Crocus is situated, it is not encouraging, and if this mine does what it is intended to do, it will be somewhat surprising. Bounded on the east we have the Langlaagte Block B, which has anything but a cheerful outlook. On the west a line may be taken to the western boundary of the Kimberley Roadpoort, a distance of about 30,000 feet, and what mines are there doing any good work at all? The only company that can be cited as a working concern along this line is the Main Reef Company, and nothing very brilliant has been shown there. It has been a series of disappointments all along this extensive line. There seems to be a certain amount of truth in what many of our mining men have said, that the big shoot of gold runs from Langlaagte to the extreme eastern end of the fields. To the west of this down to the Witpoortje break, and with the exception of the Durban Roadpoort, United Main Reef, and Princess Companies, everything has been disappointing. After passing Witpoortje, we have the extreme West Rand and South-West Rand, which shows rich in gold. From Langlaagte to Witpoortje we have the main reef series, a length of 50,000 feet, which has cost shareholders hundreds of thousands of pounds sterling, with very little results. This certainly is very unsatisfactory, but it must not always be thought that this great extent of country will be locked up. There is no doubt that, worked on a large scale, with big mills and good economical management, this section of the Main Reef series could be made to pay.

The New Crocus is doing its level best—the only thing that has to be guarded against is trying to make it out another Primrose or another Langlaagte Royal.

PRIZE DISTRIBUTION FOR ESSAYS ON MANITOBA.—Sir Charles Tepper, the High Commissioner for Canada, has had under consideration the large number of essays submitted by scholars in the schools of the United Kingdom, in the terms of the offer published, in December last, by direction of the Hon. T. Mayne Daly, Q.C., M.P., Minister of the Interior. Much difficulty has been experienced in awarding the prizes, from the fact that so many of the essays were of considerable merit. Several of the papers that have not gained prizes were nearly up to the standard of those to which prizes have been awarded, and Sir Charles Tepper trusts that this will be some consolation to the unsuccessful competitors. They all indicate the attention that must have been devoted to the study of the history, geography, and resources of the colonies, and Sir Charles Tepper desires to express his obligations to the schoolmasters and schoolmistresses of the schools from which essays have been sent. The prizes have been awarded as follows:—North of England (66 papers received): First prize, £5, William Kirby, High School, Thirsk, Yorkshire; second prize, £3, Eliza Ann Brown, Scotchmoor Board School, Beaconsfield-street, Nottingham; third prize, £1, Lillian Butcher, Stockport Technical Day School. South of England (103 papers received): First prize, £5, Arthur Burton Sharman, Gower-street Boys' School, Birmingham; second prize, £3, William Heal, Netherwood-street Board School, Kilburn; third prize, £1, Samuel Cohen, Dover National School. Wales (23 papers received): First prize, £5, Mand Kent, Conway Church Schools; second prize, £3, Elizabeth Davies, Glynarthen Board School, Rhydllewis, Llandysall; third prize, £1, John Charles Phillips, National School, Pembroke Dock. Scotland (30 papers received): First prize, £5, James Strachan, Aberdeen Grammar School; second prize, £3, Jessie Reid Thompson, Public School, Whitburn, Linlithgow; third prize, £1, Maggie Hatcheson, Public School, Blairgowrie. Ireland: Only three papers were received from Ireland, and it has been decided to award a second prize of £3 to Patrick John Diamond, National School, Larne; and a third prize of £1 to Bessie Seymour, Miss Kier's School, Ennis.

NOTES ON THE PHILIPPINE ISLANDS.

By FRANK KARUTH, F.R.G.S.

III.

BY preference the native miners work where bailing is not necessary, but such opportunities are not frequent. Where they occur, the natives make the most of them. Mr. Carnegie Williams, the able general manager of the Philippines Mineral Syndicate, reports that in one case the natives have removed an entire hillock down to sea level. They must have dealt with immense quantities of paying quartz, for they remove nothing that does not pay them. This hillock, to judge by the general conformation of the mountain ridge, of which it formed part, must have been at least 400 feet high and correspondingly broad. Spaniards and Spanish companies, in most cases with absurdly inadequate capitals, have also worked in the district, but in all cases without pumps or any other machinery than the time-honoured "arrastra." They never dealt with pyritic ores, but treated the quartz only for its free gold. In one instance, at least, that of Mambulao, their workings assumed important dimensions. Mambulao means in Bicol language the "Place of Gold," and, certainly, the precious metal is strongly in evidence in the district. Here a vast adit, opening near the sea in solid masonry, has stood the neglect of decades, and may probably be made useful again by the present proprietors of the mines, which have not been worked for more than half a century. Record has it that when they flourished, the weekly sales of gold amounted to over 1000 ounces, all produced in the primitive way by washing the pounded quartz.

One instance only has come to the knowledge of the writer of these notes, where a Blake stone-crusher and a pioneer mill were used, not exactly with the best results, for the men in charge of the machines knew nothing of them. That was in a small island away in the southern portion of the group, and the machines were soon abandoned. There are rumours of machinery having been landed elsewhere, and left to spoil on the beach, because there were no means of transporting it to where it was wanted. The most serious impediment to mining in the Philippines is the utter absence of practicable roads. The natives with their primitive ways of working do not feel the want of roads. They trudge contentedly single file, laden with their simple implements, through the trackless primeval forests, cutting their way patiently through endless tangles of lianas, and swaying labyrinths of luxuriant greenery, which would make a botanist's heart swell. In many parts vehicles of any kind are unknown; in others their only representative is the creaking country car, drawn by a pair of stolid buffaloes.

The engineers of the Philippines Mineral Syndicate were driven to many odd shifts when moving heavy machinery from the port to the Syndicate's chief establishment. In the first place a road had to be made, and, though it is barely 3½ miles long, half a dozen bridges had to be built, roughly, yet strongly enough to bear the weight of many tons. And when the road was ready, native carriers asked absurd sums for the conveyance of a couple of boilers, weighing 4½ and 3½ tons respectively. In the end a simple sledge, devised by British ingenuity, did the job for a small fraction of the sum asked by the natives. This showed them the way to do things, and they have now adopted it, to the great benefit of the Syndicate's exchequer. They have been taught that difficulties exist only to be overcome by British pluck and energy. They are apt pupils, and obey the magic words, "Go on!" which from a frequently used and sometimes somewhat adorned imperative, has advanced to be the recognised nickname of the young Colchester engineer in charge of the machinery amongst his admiring native retainers.

Thus far the fringe only of its particular district has been investigated by the Philippines Mineral Syndicate. Also, another district, hundreds of miles away from the Syndicate's chief establishment, has been examined, with the result of finding an extensive alluvial gold field at the foot of the mountains. There also the natives have worked in their usual fashion, riddling in places the ground like a sieve with their pits. It is well known that the natives in the mountains, which to a great extent are unexplored, all traffic in gold, and from the general evidence it seems probable that the auriferous formation, from which the alluvial deposits were stocked by the process of erosion, continues throughout the backbone of the island. But for practical purposes British mining enterprise must keep near the coast for years to come, until, in the progress of events, more distant mines can be reached with convenience.

The question is often asked:—"How is it that so little is known of Philippine Gold?" The answer is simple. There is no official control of the output, nor tax on it. The miners live in isolated districts and villages, with rare communication between them. And the universal man of business is the omnipresent Chinaman, now storekeeper with a fixed abode, now perambulating pedlar, who penetrates the most distant settlements, buys the gold with his wares, and sends it out of the country, over to Hong Kong or Amoy, or elsewhere. It is not his business to swagger over the volume of his trade; in fact, he keeps it dark. Those who know, are aware that the gold export is considerable, and very much exceeds the official computation, whatever that may be. "Paracale" gold is well known in Manila, but few Manila men know where Paracale is, and still less have ever visited the place. Yet it is a prosperous village, with a good deal of trade, and a large native resident mining population. May be that its name will be better known a few years hence, for it will probably be made the headquarters of a big British enterprise.

The Paracale gold dust is melted into tiny ingots, a small bivalve serving as mould, so that the gold shows the shape of the shell. These tiny ingots are tested by the Chinese purchaser, the traces of whose probing auger are always in evidence on the ingots.

Gold is found in many other islands of the group. Sr. Abella found traces of alluvial workings in Cebu. Mindoro, which is but little known, is said to be rich in gold. Panaon, a small island north of Mindanao has, at least, one well defined vein of auriferous quartz, whilst Mindanao itself is the centre of a considerable trade in alluvial gold. From specimens brought from that island the occurrence of rich quartz veins cannot be a matter of mere conjecture. Mindanao, though the first discovered island of the group, is the least known, and least settled of all. Many points, especially on the south coast, are still held by Malay Sultans and Rajahs, who, whilst acknowledging the suzerainty of Spain, have not the power or the inclination to keep their lieges from their traditional piracies. It is from some of these Malay strongholds that the *prahus* of the Orang Laut (men of the sea) sail forth on plundering cruises, as did their brethren not long ago in regions under British rule a little further west. This iniquitous trade has been stopped on the coasts of Sumatra and Borneo, and it will soon be stopped in Mindanao, where the Spanish Government is now taking drastic repressive measures. It is absurd to speak, as some news agencies have spoken, of these plundering sailies as "Malay risings in the Philippine Islands." Peace and prosperity have reigned for generations without interruption in the Archipelago, and to call the petty Malay filibustering on the coast of Mindanao a "Malay rising in the Philippines," has about the same founda-

tion of fact as the description of a petty moonlight outrage in the wilds of Kerry as a "Celtic rising in the British Isles."

Two auriferous districts have been cursorily examined in Mindanao—namely, those of Surigao and Misamis, and it is not improbable that more accurate information will be available before long.

The Fathers of the Society of Jesus have several mission stations on the Island, and do much good work. Though they naturally have nothing to do with mining, they are intrepid explorers, and have made most valuable contributions to the knowledge of the interior of Mindanao.

Mining by modern methods will, in the course of time, make curios of native mining implements, at least, wherever the engineer can take his machinery without breaking the back of the capitalists. Many points will be found on the coast, where engines will throb, and stamps will rattle within sound of the roar of the sea waves. The Philippine Islands, with their enormously extended coast line, offer opportunities but sparsely met with in other parts of the world. In respect of mines by the sea shore, the Philippines are unrivalled. Even now in a narrow peninsula, jutting out into the broad pacific in a headland of white, glittering quartz is being prepared for the reception of a crushing plant with its appurtenances, and the machinery will be landed almost alongside of the millsite. That Peninsula is a vast ore deposit, and if experienced men are not utterly mistaken, it will soon take a front place among notable mines.

The parent establishment of the Philippines Mineral Syndicate is about 3½ miles from a port, and that is at present the headquarters of British enterprise in the Far East. Crushing mills, reduction works, workshops, saw mills and officers' bungalows, form quite an oasis in the dense primeval forest.

There will be cast, probably before the end of the current month, the first bars of gold, the product of a plant supplied by that eminent firm at Colchester, Messrs. Davey, Paxman, and Co., who have sent one of their own trusted men, "Mr. Go on!" to take charge of the machinery. The Philippines Mineral Syndicate has several outlying establishments, and has unobscuredly succeeded under the shelter of its voluntary obscurity in securing the principal points of value in its particular district. That it should do this was its first duty towards its partners, not the outcome of a dog-in-the-manger policy. The Syndicate will now hail with pleasure the advent of other bodies, similarly constituted, and will frankly offer them the hand of good fellowship.

The general conditions under which mining on a large scale can be carried on in the Philippine Islands are by no means unfavourable. There is security for life and property; a good, though warm climate, an ample supply of labour, in which the occasional vagaries of the natives are compensated by the steadiness of the Chinese and the superior attainments of Manila men as engine-drivers, fitters and artisans. On the whole, they all work well under firm European supervision. The mining laws and regulations are fair. A small annual rental has to be paid for each "Pertinencia"—i.e., unit of mining grants. A pertinencia is a hectare, or say 2½ English acres. A heavier charge is the obligatory work that has annually to be done on each pertinencia, but this exaction has its good side, for it prevents the moneyless adventurer from keeping a valuable mine unproductive as long as he can pay the small annual rental. Water, fuel, and timber for mining purposes are abundant. No royalty or duty is at present payable on mine products, and as far as the Philippine Mineral Syndicate is concerned, it has gratefully to acknowledge the favourable treatment it has always received at the hands of the authorities. In other respects it has now an experience of nearly three years to help it to further progress, and if, as it is somewhere said, experience is the most expensive master, it is also the best. The subjects of the next article will be Copper, Lead, and Coal Mines.

REVIEWS.

ASSAYING.

Quantitative Assaying with the Blowpipe. For the Prospector, Miner, and Assayer. By E. L. Fletcher, U.S. Army. (New York: John Wiley and Sons. London: Kegan Paul, Trench, Trübner and Co., Limited.)

Those interested in mining are well aware of the importance of being able to arrive at an approximate idea of the value of an ore when on the spot, and they also know the practical impossibility of carrying an assaying plant about with them. The object of the work at present under notice is to describe how the assay value of an ore may be arrived at by means of the blowpipe, and the instructions are given in plain but precise terms, so that even the unskilled in chemical manipulations may follow them, and with practice attain perfection in the art of quantitative assaying with the blowpipe. As long as the results are only considered as roughly approximate this method is a cheap and easy guide to the value of an ore; but knowing as we do the difficulty of obtaining accurate results even with the comparatively large samples used in ordinary assaying, it seems to us that this difficulty is immensely increased when the sample as in the blowpipe method is reduced to a weight of 1½ grains, or as in the blowpipe furnace method to 3 grains, and that consequently the results even in skilled hands must be unreliable. The hands which are accustomed to use the prospector's pick are, we believe, ill adapted for weighing or measuring a bead which can only be seen by means of a magnifying glass. The first six chapters are devoted to the description of the apparatus required, the reagents used, and the qualitative testing of samples, and the remainder of the book is taken up with quantitative assaying. The preparation and sampling of the ore are fully described, and then in detail follow the processes of assaying for silver, gold, lead, copper, tin, mercury, nickel, cobalt and bismuth, concluding with an appendix treating of the examination of a mineral for the metals of commercial importance. The author estimates the cost of the whole outfit, including that of a pocket assay balance, at about £8; but we believe that the appliances would cost considerably less in London than in America. The book is well written, the instructions are concise, and in order to make it more widely useful we notice that complicated chemical formulae and symbols have been largely avoided. Taking the book as a whole, the author has fulfilled his intention of producing a practical, simple and cheap work on quantitative assaying by means of the blowpipe.

SMELTING METALS BY ELECTRICITY.—According to a report to his Government by Mr. F. H. Mason, United States Consul-General at Frankfurt, a new method of smelting metals by electricity has been devised by Mr. E. Tausig, of Bahrenfeld. The operation consists in fusing ores or metals in a closed furnace or chamber, the hearth of which is connected with moulds, into which the fused metal flows by gravitation. The air is exhausted from both furnace and moulds by means of pumps. The hearth of the smelting chamber inclines towards a central orifice leading to the moulds. The whole furnace is built of firebrick, and no carbon is present, not even being used for the electrodes, so that the metal can be obtained free from contamination by carbon. It is claimed that sound castings of both steel and iron have thus been obtained up to a weight of 200 lbs. or more. The castings are said to have very smooth surfaces, and to be entirely free from blowholes.

GOLD MILLING AT THE NORTH STAR MINE, GRASS VALLEY, NEVADA COUNTY, CAL.*

By EMILE RECTOR ABADIE, Grass Valley, Cal.

THE picturesque little mining town of Grass Valley, nestled in the foothills of the Sierra Nevada mountains, at an altitude of 2500 feet, has been for 43 years the scene of uninterrupted activity and prosperity, as the centre of a mining district which was intimately associated with the pioneer days of California, and the discovery of gold by James W. Marshall, in El Dorado County, in January, 1848.

Although placer mining was inaugurated in Nevada County as early as 1848, the first quartz ledge was not located until the summer of 1850. Discoveries made on Gold Hill and Massachusetts Hill increased the excitement in quartz mining, and hastened the erection (during the same year) of the first mill operated in the State.

At the close of 1864 the district had produced \$23,000,000 in gold, and all the well-known properties of to-day had been discovered and worked. The Eureka-Idaho, the North Star, and the Empire Mines were in active operation; and to-day we still find them equipped with large crushing plants, operating 80 per cent. of all the stamps in the immediate Grass Valley district. Of the mines just named the North Star Mine possesses the most recently constructed mill, a description of which, the writer believes, may prove of interest to members of the Institute engaged in the milling of gold ores.

During the year 1886 operations at the North Star Mine (the property of the North Star Mining Company) had reached such a stage of development that the necessity of a crushing plant at the mine became imperative, and early in October the erection of a 30-stamp mill was in progress. The building designed to contain 40 stamps was speedily erected, and within 60 days the large structure was under cover.

Late in February, 1887, the mill was in readiness, and upon the completion of the water power system, then being introduced at both mine and mill, the crushing of ore was commenced March 15, 1887.

The local topography presented most favourable conditions for a mill site. At a distance of only 142 feet from the landing floor of the main incline of the mine, it was found possible to discharge the ore at a vertical height of 67 feet above the projected concentrator floor. During the construction of the mill all mining operations continued uninterruptedly, the ore extracted being crushed in leased plants one mile distant.

From the numerous stopes, the ore is trammed to the main shaft, which has now reached a depth of 2400 feet, with an average incline of 20°. The shaft is well equipped with a double track way, over which 140 cars can be delivered to the surface in nine hours, actual running time. One man on each shaft delivers the quartz to the mill and waste to the dump.

The ore, as raised from the mine, is delivered in mine cars, containing a little over 13 cubic feet each; three cars making 40 cubic feet, or 2 tons of ore. Sorting on the surface is not resorted to; underground, however, the custom of "stripping" the ledge *in situ* insures for the mill a clean product, generally free from diabase (the enclosing rock).

On passing into the mill the ore is discharged over grizzlies, placed at the top of long ore bins. There are eight fine ore bins, one for each battery, of five stamps, each provided with a grizzly 4 by 12 feet in size, set at an angle of 40°. The 3 by 1/2 inch bars are placed on edge, 2 inches apart. These grizzlies simply classify the mine ore into fine and coarse. The former drops through the grizzly directly into the fine ore bin, from which it passes through a gate supplying the automatic feeder, which in turn supplies its own particular battery. Meanwhile, the coarse ore is delivered over the grizzly into the coarse ore bin, from which it passes through a gate into one of the three rock breakers. From the breakers it drops as "fine" into the fine ore bin, mixing with the mine fine, and passing on into the ore feeders as above described.

The ore thus passes, by gravity alone, from the dumping floor to the automatic feeders. One man on the day shift operates the rock breakers to crush the accumulated coarse ore delivered from the mine. The breakers (improved Blake, 9 by 15 inches) run intermittently, aggregating not over seven hours' work during the 24.

From the automatic feeders the quartz is delivered into the batteries for stamping and amalgamation. The free-milling character of the material demands only the simplest methods of amalgamation and concentration for the recovery of its gold contents. The pulp discharged through the battery-screens flows over silver-plated copper amalgamating plates to concentrating machines beyond, passing thence for further treatment in pans, or escaping from the mill direct as tailings.

The mill contains 40 stamps, weighing, when newly shod, 875 pounds each. The stamps drop 7 inches 86 times per minute. The shoes (steel exclusively used) weigh 159 pounds, and the remaining 716 pounds of the stamp are distributed as follows:—Stem, 358 pounds; stamp-head, 228 pounds; tappets, 130 pounds.

The life of a steel shoe averages 130 days, and it crushes during that period 260 tons of ore. The weight of the shoe, when removed, will average about 38 pounds. The very smooth and uniform wear observed on these shoes is due in great measure to the use of cast-iron dies.

The weight of the die when new is 100 pounds, and it loses during a life of 70 days one half its original weight. The recent introduction of cast-iron plates 2 inches thick has increased the life of the die to 80 days, the die, when removed, weighing from 40 to 45 pounds. These plates, two in number to each battery, fit snugly in the mortar, forming a false bottom, upon which the dies are bedded as usual. They serve a double purpose, prolonging the life of the dies and decreasing the height of the discharge, which ranges from an initial of 4 inches to a maximum of 6 inches.

Brass wire No. 30 screens and perforated No. 0 tin screens are used exclusively. The latter screen is an experiment, and thus far has given good results. The life of a tin screen is about 30 days; the cost, one-fourth that of wire screens. At the North Star mill, in crushing 113,955½ tons of ore, the cost for screens has been \$0.008 per ton. Dies have cost \$0.026 and shoes \$0.056 per ton, exclusive of a rebate of 1½ cents per lb. on removal shoes and dies.

The recovery of gold is first made in the mortar, where the amalgamation begins. Mercury is fed to the batteries at regular intervals, the amount varying with the grade of the ore crushed. At times this amount has exceeded 1 lb. per battery, or a flask of 76½ lbs. in nine days. Of this amount, however, 35 per cent. is recovered at the fortnightly retorting of amalgam. There is, however, a considerable loss of quicksilver, which, in treating 113,955½ tons of ore, has amounted to \$3680.05 or \$0.032 per ton.

In the interior of the mortar, immediately under the screen frame, are silver-plated copper plates 4½ inches wide by 52 inches

long. These plates, one for each mortar, are bolted to chuck blocks fitting tightly against the lip of the mortar.

As the pulp is discharged from the mortar through screens, it falls upon an outside battery or splash plate 18 inches in width, covering the iron mortar apron, which is bolted to the mortar and forms part of it. The length of this plate is equal to that of the inside plate.

The apron plate, 48 by 58 inches, lies below the splash plate, tapering to 24 inches and connecting with the three sluice plates which cover the sluice 12 feet long and 24 inches wide. From the sluice the pulp passes over shaking tables, which have a plated surface of 10 feet by 48 inches, made up of two plates 48 by 36 inches and two smaller ones, each 48 by 24 inches.

The grades of the above plates are as follows:—Battery and apron plates, 1½ inch to the foot; sluice plates, 1½ inch to the foot; shaking tables, 1½ inch to the foot. The natural tendency of the narrow sluice plates to "scour" has always been objectionable, and in fitting the more recently erected batteries with a line of plates, the width of the sluice has been doubled. These plates, eight in number, are placed side by side, and overlap slightly, aggregating 15½ feet by 4 feet wide, the total actual plate surface being equal to that of the narrow sluice plates and shaking table plates combined. The grade of these new plates is approximately uniform at 1½ inch to the foot.

Two-thirds of all the gold recovered by amalgamation is found in the batteries. The yield is, however variable, frequently reaching 75 per cent. Of the amount recovered from the outside plates, the battery and apron plates will produce 70 per cent., the sluice plates 23 per cent., and the shaking tables 7 per cent. The average value of amalgam from all sources is about \$7.25 per ounce, the fineness of the gold bars is 856. The batteries are cleaned up fortnightly; the outside plates every other day, frequently daily, and, on rare occasions, morning and evening.

In addition to the usual method of recovering the amalgam from the plates, the writer introduced, several years ago, the method of hot-water "sweating," which can be recommended for its simplicity, safety, and excellent results. The effect of simply pouring boiling water upon the plates, or immersing them (on the apron), is a source of as much pleasure as surprise when the amount secured from a poor looking plate is weighed. Notwithstanding previous sweatings during the year, the December or annual sweating at the North Star mill produced 1703 ounces amalgam from which 600 ounces gold was obtained, valued at \$10,524.82.

Leaving the battery floor, the pulp is conveyed through 3 inch pipes to the concentrators on the floor below. Each battery of five stamps being provided with two machines, the full complement consists of 12 Triumph and four Frue vanners. The latter machines are preferred, and were introduced when the 10 additional stamps were installed. The machines are conveniently arranged on one floor and readily overlooked by one man on each shift.

The ore crushed at the North Star mill contains about 4 per cent. of sulphurets. Their average value is \$53.58 per ton; and they have yielded in seven years a total product of \$236,756.63. The concentrates are sold to the local chlorination works.

From the concentrating machines the pulp escapes as tailings, containing more or less gold, notwithstanding a high percentage saved of the ore value (reaching 94 per cent. under favourable conditions). At the present writing there is in operation a simplex rotary amalgamator, treating 10 tons of tailings per 24 hours. Results obtained thus far have reduced the loss in the tailings 22 cents per ton.

The mill is operated entirely by water-power, and notwithstanding a high rate per available horse-power, the cost of power per ton of ore crushed has not exceeded \$0.32. The water used has previously been utilised by the Original Empire Mill and Mining Company under a head of 450 feet. At the North Star the effective head is 275 feet at the mill.

AUSTRALIAN EMERALDS.

The Views of Mr. John Plummer.

MR. JOHN PLUMMER, writing to the *Globe* from Sydney, says:—

In mining, as in politics, the unexpected is continually occurring, and Australia forms no exception to the rule. The great island-continent has proved exceptionally rich in precious and useful minerals, the silver mines at Broken Hill, in New South Wales, and the gold mines at Mount Morgan, in Queensland, being among the most productive in the world, and now it looks as if an exceptional wealth of precious stones were about to be revealed. Everybody has heard of the famous diamond mines at Singara, in New South Wales, but comparatively few are acquainted with the wonderful discoveries of emeralds in the same district, which bid fair to eclipse those of South America. The country around Emmaville, which is situated in the northern part of the colony, is marvellously rich in lode and stream tin, large numbers of persons being engaged in the tin-mining industry, but no one suspected the existence of emeralds.

In 1889 a rich lode of tin was discovered, and arrangements were made for working it, the finders obtaining £500 for a share of the property. A shaft was sunk, and very good ore was obtained, but after sinking some distance the vein pinched so considerably that the mine was abandoned. While sinking the shaft and working the tin lode, the miners threw up considerable quantities of green stones which they regarded as valueless. Subsequently two visitors, one a public school inspector, obtained several of these stones, which they regarded as beryls, but noticing that they were a deeper green than the common beryl, they showed them to one of the officials of the New South Wales Mining Department, who declared them to be true emeralds. Similar stones had previously been picked up by others, and supposed to be green tourmaline. Several of the specimens obtained were forwarded to London, and shown in the New South Wales Court at the Crystal Palace Mineral Exhibition, where they attracted much attention, although their colour was considered too light compared with those from South America.

In the meantime, the tin mine from which the emeralds had been obtained, having been forfeited by the original owners, unaware of its valuable character, was taken up, with large additions of ground, by a Sydney citizen who had recognised the importance of the find, and, ultimately, three companies were formed during 1890 and 1891, for the purpose of working the ground. Professor David, of the New South Wales Mining Department, visited the mines at an early stage of their development, and reported that the gems were the first authenticated find of emeralds in Australia, and that his researches led him to believe that they would continue to be found to the depth of 1000 feet. One of the companies has obtained 40,000 carats of emerald from its workings, the colour ranging from light green to the well-known medium dark colour. Another company has, while sinking shafts, obtained a fine emerald, of a beautiful dark velvet green, weighing 40 carats, and proved the existence of the gem in large quantities in the ground held by it; while the third company has found immense quantities of green and white beryls, and a few emeralds. The emeralds obtained are of all shapes and sizes, ranging from the thickness of common needles to fully an inch in circumference. The largest had a weight of 100 carats, and a considerable proportion weighed from 1 to 20 carats each. When it is considered that five or six years ago the existence of emeralds in Australia was practically unknown, these results will appear most remarkable.

MEETINGS OF MINING COMPANIES.

TINCROFT.

Dividend of 2s. per share.

A 16 weeks' meeting of the shareholders was held on the mine on Tuesday, Mr. FRANK HARVEY, J.P., presiding.

The accounts showed that the labour costs for the 16 weeks had been £7743 12s. 8d.; merchants' bills, £2676 9s. 6d.; Vice-Warden's assessment, £11 3s. 2d.; banker's charges, half-year, £511 11s. 8d.; Illogan rates, half-year, £80 19s. 3d.; Daniell and Thomas, legal charges, £5; Lord Clinton, minimum rent, one year, £25; Borlase and others, ditto, £15; doctors, £93 1s. 1d.; club, £34 4s. 9d.; ditto, debit balance, £175 5s. 8d.; Lord Robartes, dues on ores credited, £286 12s. 7d.; total, £11,198 0s. 2d. On the other side, 195 tons 19 cwt. copper sold for £398 6s. 4d.; 124 tons 12 cwt. arsenic for £1250 18s.; 258 tons 19 cwt. 3 qrs. 18 lbs. of tin sold for £9767 5s. 1d.; by discounts, £70 12s. 6d.; carriage of tin ores, £7 4s. 4d.; Inland Revenue, £16 14s. 3d.; Employers' Liability Corporation, £28 8s. 7d.; total, £11,804 13s. 9d. There was a profit of £606 13s. 7d. on the 16 weeks, and a total balance in favour of the adventurers of £2190 16s. 3d. The average prices for the quarter were:—Copper, £2 0s. 8d., a decrease of £1 3s. 4d.; tin, £37 14s. 3d., a decrease of £1 8s. 4d.; slime tin, £22 2s. 1d., a decrease of £1 19s. 5d.; and arsenic, £10 0s. 10d., an increase of £1 8s. 4d.

Captain TEAGUE read the agent's report.

South Tincroft: We are making very fair progress in sinking Martin's east shaft below the 320 fathom level. In the 320 fathom level driving west of crosscut west of Martin's east shaft, we have holed to the 320 fathom level winze. The lode is over 3 feet wide, and worth for tin £16 per fathom. This communication has laid open a large section of stopping ground. We have suspended the 320 fathom level east of Martin's east shaft, which is home within a few fathoms to the eastern boundary. The lode is worth for tin £20 per fathom. In the winze sinking below the 320 fathom level east of Harvey's engine shaft the lode is worth for tin £12 per fathom. In the 320 fathom level at Downright shaft we have commenced a crosscut south to intersect Dunkin's lode. We have communicated the rise in the back of the 212 fathom level west of Downright shaft to the 195 fathom level, which has made available a large section of shaft to the 195 fathom level driving west of Downright shaft the lode at present is poor.—North Tincroft: In the 144 fathom level driving west of winze east of Willoughby's shaft we are still driving through a valuable piece of mineral ground, the lode being worth for tin and arsenic £25 per fathom. In the No. 4 winze sinking below the 154 fathom level east of Willoughby's shaft the lode is worth for tin and arsenic £20 per fathom. In the 126 fathom level east of Willoughby's shaft the lode is worth for tin and arsenic £14 per fathom. We have nearly completed bringing down the skiproad to the 163 fathom level in Willoughby's shaft in the north part. Our prospects generally are much the same as for some time past.

Captain TEAGUE, in supplementing the report, said that in Martin's east shaft they had a very well defined lode in the 320 driving west, and he thought before long there would be a junction of the part that was sinking below the 320 to the east of Harvey's engine shaft. That winze was down now about 11 fathoms below the level, with a very small underlie. The part they had cut in the crosscut referred to before had got a much flatter underlie, and there was reason to believe that in the next lift there would be a junction of these two lodes. From what had happened in the past they had reason to believe that there was something good before them in that direction. Another important point was that the lift they were sinking in Martin's east shaft was now down 8 or 9 fathoms. They intended making a little longer lift this time, something like 15 fathoms, and that would lead to their having the benefit of the new ground to the south. If that turned out as productive as in the upper levels they had a grand future before them, and from the general indications they had reason to believe that they had a permanent property in and about Martin's east shaft. They had commenced a cross cut at the 320 Downright shaft, to cut Dunkin's lode, and during the last two or three days they had met with a kind of branch; it was really more than a branch, for there was a regular wall, and a well defined underlie, about 3 feet in the fathom, but he could not say much about that now, as they only cut it last Friday or Saturday. They had reason to hope that it was the old Chappell's lode, which was very rich in Tincroft many years ago. It was more settled than it was, so there was something to look forward to in that direction. For his own part he believed that when they cut Dunkin's lode in the 320 fathom level it would amply repay them for their outlay. Seeing that the lode was worked home close against the boundary of Cook's Kitchen, where it was large and strong, though not very rich, he believed that with anything like a fair price of tin it would pay to take away. They would thus soon have another string added to their bow in that direction. In the north part of the mine the prospects were more encouraging than for a long time past. They had taken up the 160 level in South Crofty, and had now driven through it something like 60 fathoms. It was highly mineralised throughout; in fact, it was one of the best pieces of ground he had ever seen driven through. It was composed of tin, copper, any amount of arsenic, and a little wolfram, though there was not so much of the latter as in the level above. The base from the 140 to the 150 was nearly three times as much as from the 150 to the 160, and they believed the lode was coming back into Tincroft sett. If that happened it would be a great advantage to them, but not to their neighbors. In old Tincroft shaft they had a very decent stope working within about 3 or 4 fathoms of the shaft. Within the last fortnight they had met with a good deposit of copper, and would have a good sampling which would be a great advantage to them at the next account. (Hear, hear.) They had exercised every economy during the past quarter, and had left no stone unturned to bring about the satisfactory state of affairs laid before the adventurers that day, but they had not been without some lets. In the south part they had unfortunately had a break down of the stamps, which threw them back a week, and during the recent thunderstorm, the large chimney which they had put up in connection with the new flues they were erecting to deal with the arsenic collapsed. On examination it was found that there were some "old men's workings" in the neighbourhood. They were now making preparations for building it a little further south, and hoped that the next time it would remain intact. He thought they were justified in preparing for more arsenic, as in the north part there was a lot more to come away. (Hear, hear.)

The CHAIRMAN, in proposing the adoption of the accounts, pointed out that only three months' merchants' bills had been charged against four months on other occasions, and this made a difference of some £500 or £600 to their debits, whilst the credits were lessened owing to the fall in the price of tin. On the other hand, arsenic had, fortunately, increased in price—£1 8s. 4d. per ton, and the quantity returned was more than in the previous quarter. The report of Captain Teague was encouraging, and if they could only get a better price for tin they would do very well. (Applause.)

The motion, seconded by Mr. J. WICKETT, was unanimously carried.

The CHAIRMAN proposed, and Mr. MASON seconded, that a dividend of 2s. be declared.

This was unanimously agreed to.

A vote of thanks to the Chairman ended the meeting.

CARN BREA.

Call of 6s. per share.

The shareholders in this mine held a 16 weeks' meeting on the mine on Tuesday, Mr. FRANK HARVEY, J.P., in the chair. The accounts showed labour costs, £10,162 8s.; merchants' bills (three months), £3830 1s. 7d.; Holman Brothers' new compound compressor engine, £1989; doctors' pence, £133 10s. 8d.; club

* A Paper read before the Virginia Beach meeting of the American Institute of Mining Engineers.

£65 17s. 11d.; A. F. Basset, dues, £124 0s. 7d.; Illogan parish rates, £133 12s. 1d.; Royal Cornwall Infirmary, £2 2s.; Vice-Warden's Assessment, £10 8s. 4d.; Cornish Bank (Limited), interest and commission, £106 15s.; total, £16,549 18s. On the other side—342 tons 4 cwt. 23 lbs. of tin had been sold for £12,623 6s. 8d., and 13 tons 1 qr. 17 lbs. of alluvial tin, for £372 13s. 4d.; Illogan parish stone, £3 9s. 6d.; Great Western Railway stone, £2 11s.; carriage, £2 3s. 9d.; income tax, claimed allowed, £79 2s.; Employers' Liability Company, claims, £79 1s. 3d.; discount off merchants' bills, £93 19s. 8d.; total, £13,256 7s. 2d. There was a loss on the 16 weeks of £3293 10s. 10d.

Captain WHITE read the agents' report:—

Highburrow West, Highburrow Lode. The lode in the rise in the back of the 310 fathom level west of shaft is worth £20 per fathom. This we think to be the south part of the lode, the same as is being worked in the 298 fathom west of crosscut, and will give us an additional piece of stoping ground. Since we communicated the west rise to the above point in the back of this level with the 298 winze, we have commenced stoping east and west of the same in a lode worth £20 per fathom. The lode in the 298 fathom level west of crosscut is worth £40 per fathom. Stoping in the back of the 298 fathom level west of crosscut is worth £25 per fathom. No. 1 stop in the bottom of the 298 west worth £30 per fathom. No. 2 stop in the bottom of 298 west worth £20 per fathom. No. 1 stop in the bottom of 292 west worth £12 per fathom. No. 2 stop in the bottom of 292 west worth £18 per fathom.—Highburrow East. At the time of our last meeting we had just commenced to crosscut south of Harvey's engine shaft at the 322 fathom level. In 3 feet driving we cut the lode, and continued the cross cut through lode and branches containing tin for 3 fathoms in width. Since then we have cut shaft plot at this level, and are now sinking the shaft below the 322 fathom level, the whole lift a certain bargain at £40 per fathom. Shaft down 5 fathoms. The ground here is changing, and from its present appearance we believe we are getting into a better channel of ground, and expect to have a more productive lode at the next level—the 334. The 310 end is driven east of Harvey's shaft 38 fathoms. Lode worth £20 per fathom. The 298 end is driven east on shaft 84 fathoms. Lode worth £15 per fathom. We have eight stopes working here and at Fodder's lode; worth on an average £10 per fathom.—Old sump. The engine shaft is sunk 5½ fathoms below the 255 fathom level; every facility is afforded the men in sinking to reach the junction of Druid's north lode with Teague's lode, which we consider a good point. The 255 end is driven east of cross cut on Druid's lode 11 fathoms. Lode worth £10 per fathom. The lode in the winze sinking below the 244 fathom level east on Druid's lode is worth £3 per fathom; in the 244 end east on Druid's lode £11 per fathom. We consider the drainage of these levels east on this lode most important, as we expect, by so doing, to drain the whole of the new shaft workings on Druid north lode, and also enable us to drive a crosscut to Druid south lode, which would give us back on that lode as well of 60 fathoms in height. During the past 16 weeks we have been doing a large amount of extra work in erecting the new air compressor, and in connection with this we have fixed over 500 fathoms of 5 and 6 inch air pipes in shafts and levels, the whole of which is acting satisfactorily. We are now enabled to develop the mine more advantageously, and consider the prospects very encouraging. We have now six boring machines at work, with which we drove in the last four weeks 35 fathoms of ground.

Captain WHITE then read an exhaustive special report on the position and prospects of the mine which he had prepared at the request of the committee. In the course of this it was stated that for some years they were not in a position to carry on the mine as they wished, owing to the absence of the requisite appliances, but that the mine was now admirably equipped for future development, and he recommended vigorous development, especially on the Highburrow lode, which was the main lode of the district. He said that during the present depression they had gone through their working costs, and reduced the outlay on labour from £3000 to less than £2600. With the new compressor they saved 30 cwt. of coal per day, as compared with the old one, and did 75 per cent. more work, whilst the cost of driving had been reduced with the new compressor from £10 10s. to £8 per fathom. He was glad to say that the heavy expenditure was now at an end, and they hoped for better things in the next six weeks. Everything, though, depended on the price of tin. The present price was too low for Carn Brea, but he hoped a better price would come, and that their next meeting would be under more favourable circumstances.

The CHAIRMAN, in moving the adoption of the accounts, regretted that it would be necessary to ask the shareholders to put their hands into their pockets. In accordance with the practice at that mine, everything was charged close up, and the cost of the new air compressor—£1989—was included in the accounts, as was a sum of £544 for the building in connection with it, and £300 for air pipes required underground, so that really, although there was an apparent loss of £3293, if they took out the extra and extraordinary cost of the engine, &c., the loss would not have amounted to more than £469 8s. 3d., and if they had obtained the same price for their tin as they had last time there would have been no loss at all. Two years ago they were getting £51 per ton for their tin—and that was a low price, for in order to work Cornish mines at a profit they ought to get at least £60 per ton—a difference of £14 1s. 4d. compared with the price they were now getting, and making a difference of £4780 on their returns that day. The total costs were less than last time, if they left out the price of the engine, but then the credits he was sorry to say were not so large either. He believed that nothing more could be done by the agents than was being done. Of course, in a big mine like that they must have a heavy expenditure, unless they stopped development, and he thought they would agree that that would be a suicidal policy to adopt. With regard to the price of tin he supposed the supply was at present greater than the demand, and the low price of silver enabled the Straits people to produce tin at great profit to themselves. Mr. Harvey also mentioned the offer of the agents and pursuer to accept reduced salaries, which had been accepted by the committee, with thanks, and said that the recommendation of the committee was that a call of 6s. per share should be made to meet the loss.

Mr. HEARD, who seconded the report, said he thought Carn Brea was never in a better position than at present to make good profits if they had a reasonable price for tin. He had hoped that some one would have been there to speak on tin, but they were left to themselves, and even the best men appeared to be unable to prophesy what would be the case in regard to that metal. (Hear, hear.)

The CHAIRMAN proposed a call of 6s. per share.

Mr. JOHN MAYNE seconded, and it was agreed to.

A vote of thanks was accorded the committee and staff, on the motion of Mr. A. HINGSTON (Liskeard), seconded by Mr. J. WICKETT.

ENGLISH CROWN SPELTER.

A fairly satisfactory year.—An improved quality of ore.

The 11th ordinary general meeting of the English Crown Spelter Company (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. EDMUND A. PORTFEX.

The SECRETARY (Mr. E. C. Leaver) read the notice convening the meeting.

The directors reported as follows:—

The balance sheet and profit and loss account for the year 1893, together with the reports upon the operations at the mines in Italy, and at the smelting works at Swansea, are herewith presented to the shareholders. The accounts show that 5258 tons of raw ore were raised at the mines, producing 3541 tons of calcined calamine net dry weight (including 89 tons from the Parre Mines) at a cost of £3 6s. per ton of ore delivered ex ship at Swansea. In addition to the quantity of calamine consumed, 3240 tons of blende, zinc ashes and other furnace materials which had been purchased were treated. The whole resulted in the production of 8395 tons of metal. The average price obtained during the year for the metal sold was £18 5s. per ton delivered at Birmingham, as against £21 8s. 9d. in the previous year. In the last year's report it was stated that during the latter portion of 1893 the returns from the mines had greatly diminished both in quantity and quality. During the year now under review the quantity of the ore obtained has again somewhat diminished but its assay contents have improved. The very low prices ruling for spelter, and the less quantity of ore obtained, have rendered it impossible to raise it at a profit, although the better quality of the ore, and the reduction which has been effected in the cost of raising it, has in a measure compensated for the diminished quantity and lower price. The erection of the new dressing machinery at the mines was completed during the past year, but only in time for but little more than preliminary work to be done previous to the winter setting in. The machinery proved capable of dressing the discariche to the desired richness with efficiency and economy. During the first two months of the present year the dressing operations were stopped by the severity of the climate which prevails in the winter, but since then the works have been in fairly active operation, and are giving very satisfactory results, both in bringing into marketable condition the accumulated

heaps of discariche, and in separating from the mine ore the ingredients which interfere with its economical smelting. Satisfactory results have been obtained from the smelting works at Swansea during the year greatly owing to the improved arrangements and to the economies that have been introduced (some of which have been referred to from time to time in previous annual reports) and to a sensible reduction both in the quantity and price of the coal used. The works have been kept in thorough repair, and about £250 has been expended during the past year out of revenue upon additional or improved substituted plant. The net result of the combined operations of mining and smelting, after deducting the debit balance of £297 3s. 2d. brought from the previous year, has been to leave a net profit of £2738 3s. 5d., out of which the directors recommend the declaration of a dividend of 2½ per cent. for the year, amounting to £110; leaving £2628 3s. 5d. to be carried forward to the next account. In view of the depressed state of the spelter market—in common with nearly every other—the results obtained during the past year may be considered not unsatisfactory. With the aid of the new dressing machinery, which is now in full work, there is every reason to feel confident that the company's future profits will show a considerable improvement.

The CHAIRMAN said: Gentlemen, I think you will be of opinion, in view of the very low price of our produce which has prevailed during the whole of the past year, and which, unfortunately, is even lower at the present moment, that our accounts show a fairly satisfactory result. We have been having—and are still having—a hard stand-up fight against the continually falling price of spelter, as of most other produce; but I am glad to say that, so far, we appear to be winning the battle. The improvements and economies which we have effected have fully compensated for the fall in price which has occurred since the period of closing the previous year's accounts. You may remember that we began the year 1892 with the price of spelter at £23 7s. 6d. per ton, and that in September of that year it had fallen to £18, the average price obtained for our metal during the year having been £21 8s. 9d. The result of the fall was that, although we had made a good profit during the first half of that year, we made a considerable loss during the second half, and had our costs remained the same as they then were we should have made a further heavy loss during the year ended December 31, 1893; for in that year the average price of spelter again fell—to £18 3s. per ton, an additional fall of £3 5s. 9d. per ton, equivalent on our total raisings during the year to a further deficiency of about £5000. Fortunately, however, this calamity has not befallen us. Instead of a loss we have made a profit for the year 1893, though but a small one. This we have done in spite of the fact that the mines yielded a diminished output of ore as compared with the previous year; but, luckily, the assay of these ores was higher than before—higher, indeed, than it has been since 1889. In 1893 the average assay of the ore was 47.69 per cent. against 44.13 per cent. in 1892. The costs per ton of ore delivered at Swansea were reduced from £3 11s. 9d. in 1892 to £3 6s. in 1893, a decrease of 5s. 9d. per ton. These two items effect a saving over the previous year amounting approximately to £2750, and the improvements and economies which we have effected in our transport and smelting arrangements are sufficient not only to cover the remainder of the loss caused by the fall in price to which I have referred, but also to dispose of the debit balance of £297 3s. 2d. brought from the last year's account, and to leave a profit of £2738 3s. 5d. upon the operations of the year. Thanks, therefore, to these improvements and economies, we are able to pay you a dividend, instead of making the very heavy loss which might have been anticipated in consequence of the low price which has prevailed for spelter. The chief savings that have been effected, and which have enabled us to achieve this result, have been to the extent of 5s. 3d. per ton of the metal produced in economies in discharging and hauling, and in the Swansea charges upon ore; 4s. 8½d. per ton is due to the diminished quantity and lower price of the coal used, and 2s. 5½d. per ton has been saved in wages. As I have said, these items added together form the aggregate of the savings effected, and turn what would otherwise have been a heavy loss into a fair margin of profit. Indeed, this profit might have been made to appear somewhat larger had we not again charged to revenue account improvements and additions to plant at the smelting works which, perhaps, might not unfairly have been carried to capital. In the present instance these charges amount to £850. Coming to our capital account, you will observe that the property in Italy and Swansea, which was stated at £71,013 12s. 7d. on December 31, 1892, has been increased to the extent of £6486 4s. 11d. in 1893, and now stands at £77,499 17s. 6d. This increase has been expended on the dressing works which have been recently erected, and upon other improvements incidental to them, a portion of the cost of which might, perhaps, be charged to the mining department, as they will effect economies in the bringing down of the ore. The expenditure in relation to the new dressing works in the years 1892-93 amounts to £12,125, of which £7741 is the cost of the dressing works proper, and £4384 has been expended upon the Bleichert line of aerial transport—which carries the dressed ore from the dressing works to the high road, whence it is carted to the railway depot—upon altering and improving the systems of aerial transport from the mines to the dressing works, and in erecting the new establishment buildings required in connection with the installation. I think we may anticipate that these dressing works, although, as usual, their cost has exceeded our expectations, will amply repay their outlay. At present they are apparently yielding a profit of £300 a month; but we hope this may soon be considerably increased, when the best methods of treating the ores have been ascertained and perfected in all their details. Coming now to the present year, I am glad to say that the output from the mines has improved since the closing of our accounts in December, 1893. In the first six months of 1893 we raised 2430 tons, and during the corresponding period of the present year we have raised 3260 tons, an increase of 830 tons, and the ore continues to improve in quality, the latest shipments having been of a grade as high as 53½ per cent. It is unfortunate that this has been so, for we have to deplore a still further fall in the price of metal during the same period; but if during the rest of the year we continue to raise at the same rate, and if the price does not further fall, we shall be able to make a fair profit, notwithstanding the low prices. We must hope, too, that the proverb, "It is a long lane which has no turning," will soon be verified, and that the present depressed condition of trade, which affects so severely all markets, and more particularly the metal market, will not be indefinitely prolonged. In that case we shall reap the full benefit of those economies to which the stress of bad times has compelled us to devote more particular attention. I shall be happy to answer any questions that may be put, and now beg to move the adoption of the report and accounts.

Mr. J. RICHARDSON FRANCIS seconded the motion, and it was carried unanimously without discussion.

On the motion of the CHAIRMAN, seconded by Mr. S. LOVERIDGE, the retiring director, Mr. Richardson Francis, was re-elected.

Mr. RICHARDSON FRANCIS, in returning thanks for his re-election, said that if only the price of the metal kept at a reasonable figure the company would be very successful. While staying in Italy for three or four months he had the advantage of seeing completed the final stages of the erection of the Bleichert system for bringing the ores down to the dressing works, and from there down to the level, where the carting was used, and the cost of maintaining the road—one of their great sources of outlay—had been obviated. There was undoubtedly one of the finest installations in Italy, and one that they had every right to be proud of. Under the new arrangement they were able now to clean their ores as they came from the mines as to send them to the works in a superior condition for smelting, thus saving a very large amount of useless delay in getting rid of deleterious matters. The ores mined had turned out richer than ever before. Seeing that they had about 100,000 tons of calamine lying about the mines outside, and about an equal quantity inside, all of which could be utilised, it seemed to him they had a very fine prospect, because all that had been mined and had gone into the cost of the ore hitherto received. Even supposing that the price of the spelter did not rise to any material extent, he thought they were in a better position than any other company of the kind for working at a profit. He looked forward to very fair results in the current year, unless prices came down to a figure not contemplated. In the past they had had sharp crises, but never before such a dragging miserable time as in the last three or four years. Still, supposing that nothing occurred to relieve the mono-

tony of bad prices, they were in the best position to turn what they had to the greatest advantage in the zinc market.

Mr. HAROLD seconded the declaration of a dividend of 2½ per cent., which was carried unanimously.

On the motion of Colonel MOCK, the auditors, Messrs. Spain Bros. and Co., were re-appointed.

Mr. GEO. GRANT FRANCIS, M.E., the company's engineer, briefly addressed the meeting, saying that he anticipated that the profit from the mill would be larger than the Chairman had stated, and that they were running at a profit of at least £1 a ton. At present the mill, although not working at its full capacity, was making about 400 tons of raw ore per month equal to about 300 tons calcined of 50 per cent. zinc. He believed that the ore would come well within his original estimate of £2 to £2 5s. a ton of calcined ore delivered at Swansea.

A vote of thanks to the Chairman terminated the proceedings.

MYSORE WEST GOLD MINING COMPANY.

A good commencement.—Some promising assays.

The first statutory meeting of the Mysore West Gold Mining Company was held on Wednesday, at the Cannon-street Hotel, the chair being occupied by Mr. ROBERT WALKER.

The SECRETARY (Mr. L. J. Woodman) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen, as you are aware, at this meeting no business can be transacted, but it is generally expected that the shareholders present shall have an opportunity of hearing the latest intelligence from the mine, and I will endeavour in as few words as possible to give you a general idea of the position up to date by placing before you the telegrams we have received. In the first place, I think it will be satisfactory to you to know that all the shares have been applied for—(hear, hear)—and that we are thus placed in a very excellent financial position. Roughly speaking—you know we are partners in working the Tank block with another company—we have £15,000 of money, and, in addition, we have a reserve capital of about £20,000. The capital is £150,000, and we are leaving these 20,000 shares—which can only be issued when the shares are at par—available for other purposes. I hope that when money is required for any particular purpose—say, for extraordinary development for the purpose of putting the mine into a position similar to that of the other mines in the neighbourhood—that we may be able to issue a portion of these reserve shares at a premium. As you are aware, gentlemen, the Mysore West have, in addition to their other assets, an income from the water of Walker's shaft on the Kaiser-hind property of not less than £600 a year, besides an income of about £220 from surplus water in the Tank block. The Wynad have also this £220 from the Tank block. However, I will endeavour to keep as closely as I can to the West for the moment, and I will now attempt to give you an idea of the position of the mine up to the present date. The shaft we are working now is the south shaft. At 196 feet we struck the lode, and at 354 feet we came again upon the lode, and again at 400 feet, where we drove in a patch of extraordinarily rich ground. Some of you, gentlemen, may recollect that I have advised you to look at the reports of the Nundydroog Company, for it is as certain as anything in mining can be that what the Nundydroog Company have we must have. It has turned out in all these different levels that we have had similar results to those of the Nundydroog Company at the same depths, and it is the case, as you know, with all the Kolar mines that the deeper you go the richer becomes the ground. Such has been our own experience. Thus at the 345 level the assays taken of seven samples of ores averaged 3 ounces 10 dwts, 12 grains. The 400 feet level is being driven, as you know, south towards Nundydroog. You are aware that the Nundydroog Company come within a few feet of our boundary, and they cannot get any further, but they have left there a very valuable lode, which, of course, goes into our property, where we are just now catching it. We have received several telegrams recently, all of which have been published. A late one gave 12 ounces to the ton, and I dare say that some of you, gentlemen, may feel a little incredulous as to this. As yet we have not had the cable confirmed by letter, but all those previously received have been so confirmed. For myself I have not the least doubt that the cable is correct, but I do not think that this extraordinary richness will last long. We could hardly expect that it would. I remember well that the Ooregum once struck upon a patch of ground yielding 16 ounces to the ton, and it is not uncommon that we should have struck upon a little patch giving such high results. If we have an average all over the mine of 2 ounces to the ton we shall have a very good mine. I will now ask the secretary to read the telegram we have received to-day.

Mr. L. J. WOODMAN read the following telegram:—"Crushing 35 tons, of which 17 tons quartz yielded 21 ounces gold. Shaft sunk during the month 13 feet 6 inches. The stope has widened 5 feet 6 inches, giving 2 ounces. The mine almost daily improving."

The CHAIRMAN: I may mention that the last two crushings averaged about the same. There is at present a good deal of country rock mixed with the ore, for we have not yet facilities for separating it from the quartz. Some of you, gentlemen, may not have been aware until now that we have a new manager. That manager (Mr. Percy Bosworth Smith) is known to be a man of great ability and of great experience in the Kolar field. He was appointed some years ago by the Mysore Government to report on the whole Kolar field, and I have every confidence that in him you will find a most able and energetic manager.

Mr. SPENCER asked how the company were off for water.

The CHAIRMAN replied that the company were supplied with water to any extent.

Mr. MIDDLETON enquired how long it would be before the company would be having continuous crushings.

The CHAIRMAN said the company possessed a mill capable of working 40 stamps, but up to the present they only had 10 going. He could not say how long it would be before there would be crushing on a sufficiently large scale to require more stamps. Just now, however, they were stopping pretty rapidly, but it was impossible to say how long it would be before additional crushing power was required.

Mr. MIDDLETON: Are you getting sufficient from the mine now to make it self-supporting?

The CHAIRMAN: Not at the present moment, certainly. You could hardly expect that now we are in the process of development. I may say that I think the mine is far beyond the speculative stage. The next is the self-supporting stage, and after that comes the dividend paying period.

Mr. SPENCER moved a hearty vote of thanks to the Chairman for presiding. He thought all the shareholders would agree that the directors deserved an encouraging vote for the way in which they had managed the mine.

The vote was carried by acclamation, and, the Chairman having briefly replied, the proceedings terminated.

Subsequently the statutory meeting of the Mysore-Wynad Company was also held, the chair again being occupied by Mr. ROBERT WALKER.

The CHAIRMAN addressed the meeting, his speech being substantially the same as that delivered at the previous meeting. He added that he hoped that the time would come when their tailings would be of so little value as to render crushing useless. A second treatment of the ore was obviously a greater expense, and he hoped that the necessity would be obviated by a more effective mode of crushing. Whatever could be done in that way he felt sure that Mr. Bosworth Smith would do.

Mr. BROOKS moved a hearty vote of thanks to the Chairman, expressing the hope that in the future the shareholders would have all important information supplied to them as early as possible.

The CHAIRMAN, in returning thanks for the vote, promised that the wishes of the shareholders should be observed, and pointed out that what had in the past hindered the board from a more frequent communication with the shareholders was solely the question of expense.

The proceedings then terminated.

THE LOMA GOLD MINES.

The ditch works completed.—Reductions in the mine expenditure.

The third ordinary general meeting of the Loma Gold Mines (Limited) was held yesterday at Winchester House, the chair being occupied by Mr. H. S. SANKEY.

The SECRETARY (Mr. H. P. Creasey) read the notice convening the meeting.

The CHAIRMAN thought there might, perhaps, be some occasion for apology for holding the meeting so near the holidays, but Mr. Prender had been unable to send his report to them until the end of last month, and holding an annual meeting without presenting the report of the superintendent would be like the play of Hamlet with Hamlet left out. They had, therefore, to wait until the report arrived, and immediately it came they sent it round. Had the meeting been postponed until the autumn they would have had to present more than a year's accounts, and the shareholders would agree with him that it was much more advisable to present accounts covering the financial year exactly, otherwise comparisons extending over several years were difficult to make. The report carried nearly everything the directors had to say, for in a large company like that, numbering some 1400 or 1500 shareholders, it was necessarily difficult to get more than a few to attend the meetings, and it was right that the individual shareholders should have all the information relating to the affairs of the company, so that if they had any questions to ask they should have an opportunity of coming to ask them. Annual meetings were held more for the purpose of the discussion of any points shareholders might care to raise than for anything else. They would remember that at the last meeting he explained that he had been asked to go out to the mines in order to enquire into the delay which had taken place in the fulfilment of the contract for the construction of the ditch, and when he arrived on the other side he found that the ditch was less than half the cubic capacity named in the contract. Had no director gone to the other side, it would have been next to impossible to have discovered the true state of affairs. The contract was stopped, and recourse was had to arbitration, with the result that the work done was found to be valued at something under £12,000, which had already been paid, leaving £420 to be returned. They then determined to continue the construction of the ditch on the company's own account. Such was the resolution stated at the last meeting. The year which had passed had been profitably employed, and the ditch was now practically completed. They would see by the report that the company had been fortunate enough to secure the assistance and advice of Mr. Russell, who had estimated that the whole of the section could be completed for another £10,000, and who had done 4 7/10ths of the work at a cost of under £5000. So that they had the unusual result of a contract being completed at under rather than over the estimated cost. That he thought to be a matter of great congratulation. After Mr. Russell had been superintending the works for some little time he was appointed as superintendent to the Tolima Mining Company. The post involved considerable work and responsibility, and it was stipulated that he should take no outside engagements. His connection with the company, therefore, ceased, and they were fortunate enough to secure the services of Mr. William Griffiths, who had been superintendent at the Gravel Gold Mine for some time, and he had completed the rest of the works in a very able manner. He was present in the room, and no doubt the shareholders would like to hear a word or two from him. The details of the work had been so recently published in the papers, that anything like a description of them would be out of place. The report of the engineers, however, was to the effect that the work was quite the most difficult that had ever been undertaken in Colombia. The construction of the ditch had, indeed, been of exceptional difficulty, but it had been completed, and that practically summed up this year's work. In addition, however, they had satisfied the owners of the land through which the former ditch passed, whose discontent had laid the company open to the possibilities of litigation, and damage to the works. The Guarumo section had been left in a very unsatisfactory condition, and a good deal of the timber had rotted, while it was feared that some of the high bridges would break down altogether. Owing to the breaks here, there had been, of course, a great deal of delay in running the mine, and had occasioned some loss in the returns. They had resolved, after consideration, to do away with the high bridges altogether, which would, no doubt, greatly diminish the number of breakages. This was all he could add to the information contained in the report in regard to the ditch. As to what had been done in the mine he regretted to say that the results hardly justified the expectations which had been formed at the last meeting. The returns might seem a good deal less than they were last year—£880, against £1700, but it must be recollected that the larger sum represented 16 months, which would bring the sum down to £1200 for the year. Soon they would be having another return from the mine, as the manager had shortly intimated his intention of cleaning up. Some time ago he was asked not to cable over the results of the clean up, unless they were anything phenomenal, and if £320 were allowed for the clean up—not at all an extravagant estimate—the return would be brought up to £1200, a sum equal to that obtained last year. Of course he did not intend to convey that this sum was at all a satisfactory one in itself, but they should remember that while the new ditch was being made, and the old ditch perpetually breaking down, the intermissions to the work had prevented them from pursuing regular operations at all. His whole time had been occupied in the construction of the new reservoir, the timbers of which were now in, while the process of filling was being commenced. The shareholders would naturally expect him to say something about the accounts. The cost of making the Guarumo section had been £4262, calculated up to the end of March. Completed accounts had been received since then, and these amounted to some £700 more, so that the whole expense of the Guarumo section would amount to about £5000. The mine expenditure during the year, which had amounted to £1865, could hardly be regarded as unsatisfactory. Some £150 a month was not a large sum to expend, and its smallness was a proof that Mr. Prender was working the mine very economically. The office expenses also compared favourably with those of last year. At the last annual meeting he had expressed his conviction that they could not be reduced, but they would see that some small reductions had been made. As to the cash balances, it would be seen that there was rather a large sum in Colombia—over £2000. When sending out remittances to the other side, the rate of exchange had been so high that they had considered it advisable to take advantage of it as much as possible, with the result that they had been able to settle their expenses on the other side at a cheaper rate. The investments, they would see, had naturally had to be reduced in order to pay the expenses incurred during the year. Some reference ought to be made to the item of calls unpaid, which amounted to £5000. To be frank with the shareholders he must say that he considered this to be the most unsatisfactory item in the accounts. Last year the item had stood at £7000, and since then they had been able to recover £2000. A good many letters had been written to the directors, expressing strong disapprobation at this item. He could assure the meeting that the directors had done everything in their power to gain the money. The matter had been put into the hands of the company's solicitor, and everything possible had been done short of forfeiting the shares. Notices had been sent round, and unless the calls were paid the shares would shortly all be forfeited. He should be surprised if more than four-fifths of

the sum was recoverable, and calculating on the capital of the company, he did not think this a very large amount to be lost. Passing on to refer to the manager's report, he said that parts of it appeared to him to be slightly contradictory. One passage in it was, however, highly satisfactory—the part in which he said:—"With our present supply of water I estimate that we have gravel uncovered before us sufficient to run for about three or four years; and from the outlet of the ditches in all directions, it leads us to believe there is hardly the slightest doubt that the deposit is quite sufficient to count on for a lifetime of working, and my grounds for this belief are formed by the uncovering of gravel of different sections all over the property where we hardly anticipated its existence." Probably it would be necessary for them to increase the staff on the other side in order to look after the ditch, which altogether was 21 miles long. He would not prophesy as to the future, but now that they had finished the work to the ditch, he hoped they would be able to cease expenditure for a period and pay for the work. In that case they would not have very much longer to wait for returns, and three years was not a very long period in which to float an hydraulic mining company and get it into full working order.

The CHAIRMAN concluded by moving the adoption of the report and accounts.

Major W. P. Ross seconded the motion.

Mr. GRIFFITH then addressed the meeting at great brevity, explaining the nature of the works recently concluded, and remarking on the difficulties of carrying out similar works in tropical countries. Mr. EARNEST, who said he was in receipt of some special information from Colombia, criticised the past management of the company, contending that the works at the mine had cost more and had been done worse than should have been the case.

Mr. THOMAS DAVIS urged the board to consider the advisability of effecting some changes in the management.

The CHAIRMAN, in reply, pointed out the great difficulty of getting experienced managers in Colombia, and so that the directors had been to great pains to further the interests of the company in that way as in all others. They had under consideration the question of management upon the other side, and contemplated shortly readjusting the staff there.

The motion for the adoption of the report was then put and carried unanimously.

The retiring directors, Mr. T. E. Briggs and Mr. E. J. Tabor, having been re-elected, and the auditor, Mr. E. A. Harvey, having been reappointed, the proceedings terminated with a vote of thanks to the Chairman.

THE EDITOR'S LETTER BOX.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders though these need not necessarily be published.

WEST AUSTRALIAN MINING.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—Bayley's phenomenal property on the Coolgardie gold field, to which the district mainly owes its auriferous reputation, has always been regarded as a solitary and exceptional deposit, such as is not likely again to be either repeated by Nature, or discovered by man. A recent despatch from the field, however, describes a marvellous find, rivaling, if not surpassing, Bayley's in its early stages of production. The gold in the Londonderry Mine, as this find has been named, is contained in a quartz reef about 9 miles south-west from Coolgardie, and is carried in a clear amber-tinted stone, from which the usual ironstone is entirely absent.

So strongly is the quartz interlaced with bright, coarse, wiry gold, that after the rock has been fractured, it has to be wrenched asunder. So far every piece of this close grained stone shows nearly one-third of gold on the face. Although rumours of this discovery have been current for some time, the matter was kept a profound secret until the end of June.

The claim was discovered by a party of six tired, disheartened diggers, who, in prospecting along the route from Lake Lefroy, struck an outcrop showing pieces of gold nearly 1/2 dwt. each in quartz. Leases were taken up for three 24 acre blocks at the beginning of May, and later on exemption was lodged for all excepting the central block, on the ground of scarcity of water. It appears that application was never made to the Warden's Court, and no work was done on them, consequently the two blocks were "jumped."

The workings consist of a trench or cutting across the reef, 5 feet long by 2 feet wide, and 3 feet deep, with a shaft 40 feet deep, sunk away from the reef in the cutting. Four thousand ounces were dollied out in five weeks, and the specimens have been on view at the Union Bank in Perth. The holders of the leases are Messrs. Elliott, Mills, Huxley, Gardiner, Carter, and Dawson, and these lucky diggers have been offered large sums for the property. Among others, Mr. I. E. Scantlebury offered £25,000, but it is reported that Captain Bagelhole has secured the mine for £50,000 in cash and one-sixth share interest. Experts who have examined the "Londonderry Mine" agree that it is a true fissure vein, so far as can be judged by a limited exposure. It was said that one 3-foot hole with a charge of dynamite would liberate thousands of pounds worth of gold in a moment. To remove any doubt as to the authenticity of this information, I quote a telegram from the Warden at Coolgardie to the Secretary for Mines, Perth:—"It is quite true that a very rich find has been discovered south-west of Coolgardie; 4250 ounces have been banked. Thousands of ounces are in sight.—Victor Black, Warden."

So great is the importance that is attached to this discovery that a deputation waited on Sir John Forrest, the Premier, suggesting that the Government should purchase some specimens from the Londonderry reef for exhibition in Melbourne, Sydney, Adelaide, Brisbane, and finally in London. The Premier very naturally said he would like to see the specimens before making any promises. He, moreover, demurred as to the Government purchasing specimens for Australian exhibition, suggesting that the owners could undertake this; after which the Government would consider the question of buying the exhibits for display in London. He admitted that the previous exhibition of Bayley's gold in London had been of great service to the colony, but it had cost them £2000. He likewise hinted that the English people might begin to think that the colonists were going a shade too far in this direction. Finally, however, he suggested that the owners should be asked not to dolly gold out of the stone, but to send the bulk specimens to the bank in Perth, when the subject would be considered.

The following experts have visited the fortunate prospectors at their camp:—Captain Bagelhole, late manager of Bayley's Reward; Messrs. William Adams, late manager at Broken Hill; John Pearce, manager of the United Coolgardie Syndicate; Robertson, manager of McCulloch's; Stockfelt, William A. Lindsay, and I. E. Scantlebury. They consider the specimens the most magnificent ever seen in the mining history of Australia, and if the reef goes down no further than already proved, there is £25,000 worth of gold in it; if it goes down 100 feet this sum will be increased to something like a quarter of a million.

I have also advices from North West Australia giving news of an important discovery at the Coongan Gold Mine on the Marble Bar district of the Pilbarra gold field, where the reef has been struck at a depth of 121 feet, with a width of 5 feet, bearing very rich gold.—I am, &c., ALBERT F. CALVERT. 47, Old Broad-street, City, August 9th, 1894.

THE NEW RIETFontein FIASCO.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The unwarrantable and disgraceful attempts to bolster up this rotten concern have proved abortive, and have only ended in the mine closing down. For the past two months every ounce of gold won has cost at least £5, the company is now getting heavily into debt, and the next move will be a request for more capital. For the present actual position of the mine the responsibility undoubtedly rests upon the shareholders themselves for not demanding from the directors, at an earlier stage, some account of their stewardship.

For the loss of the reef they (the directors) are certainly not accountable, but the statements in the official reports from the mine from time to time were calculated to give shareholders every confidence as to the value of their property being enormous. All these official mining reports were of a most misleading character, and could have been intended for nothing else. I have attacked the management in the *Financial News*, the *Financial Times*, *South Africa*, and *The Mining Journal*, as well as through the Johannesburg papers, and have followed the subject up continuously for months past, and every time I have published confirmatory statements of a damaging nature, and exposed the naked truth. An official cablegram has been sent in answer thereto, to the effect that the mine was looking better, and to deny the unfavourable rumours. At the same time, they knew that exploitation only further proved that the indications were most unsatisfactory, and that there were no hopes whatever of any improvement, and the workings were looking worse and worse every day; every effort was made to scrape up ore from all available points to keep the mill running, in order to prove my assertions unreliable. In face of all this, I am a little surprised that shareholders have not taken more heed of what has been going on. The directors are certainly responsible for unreliable reports issued from the mine, as they must have known that those statements were not in accordance with facts.

Mr. W. Hay Hammond, the eminent mining engineer, was appointed consulting engineer, immediately after an onslaught from me against the management. The effect of this appointment induced a feeling of confidence, it being openly stated that Mr. Hammond would not have his name associated with a mine that had not the certainty of a future before it. Mr. Hammond afterwards reported fully upon the working and the future prospects; this report was certainly a work of art, compiled with the utmost caution in order to avail its author at any time of not one but many loopholes of escape, an analysis of the whole amounted to nothing more than an exhaustive report on hopes and probabilities. This was quite sufficient to satisfy shareholders, being read as a refutation to anything I had published. In the opinion of mining men the report was evasive and misleading and deserving of the severest criticism. Mr. Hammond had every facility for inspecting and surveying all the workings, and must have known that the condition of the mine was deplorable, and that hopes of any improvements were almost impossible, and also at the time he wrote his report the mill should have been shut down, and the scraping and rooting out from every conceivable corner abandoned, and development pushed ahead.

Mr. Lewis had no facilities offered him, but he did inspect the mine, and sent a detailed report, which was published in the *Financial News*, November 23, 1893. "In this report he states that to keep the mill going a considerable amount of ore was being won by means of open cutting, but that this would soon be exhausted, that No. 6 shaft was stopped, the reef having pinched out, No. 5 shaft was shut down, a crosscut having been driven without finding the lode, No. 3 and No. 4 shafts have also been closed down, as there is no payable ore. No. 2 shaft is the only part of the mine where there is any chance of keeping the mine from shutting down; from No. 2 to No. 7 shaft, a distance of about one mile, there is no payable ore being found, and the formation is much broken up; this mine, in spite of all attempts to bolster it up, will close down before the next six months."

In answer to this the Johannesburg secretary cables: "Give most emphatic denial to rumours of closing down, which are absolutely groundless; profit for month of October, £4000; this monthly rate of profit and output (2816 ounces) will be maintained, and now reiterate that rumours of closing down and reconstruction are absolutely false. Alfred Lewis is unknown in Johannesburg." (This cable was published in the *Financial News*, November 27th, 1893.)

Similar cables have been sent in response to all of my publications bearing on the mine. However, the battery has shut down, and almost within the time stipulated, and the facts as stated by Lewis were correct, and Mr. Hammond and the directors must have known it. Shareholders have been wilfully misled by those in power; it cannot be accidental, and it is only by reference to cables like the one above referred to, coming from the secretary, that the public are outrageously taken in. No explanation is possible to advance, such as circumstances over which they had no control, and had not foreseen, what Lewis could see, with every opposition thrown in his way. Mr. Hammond should have had no difficulty in seeing, and with his experience and world-wide reputation it is generally admitted that he did see, and wrote his report accordingly, protecting himself by ifs and hopes. In the opinion of many Rand speculators, the New Rietfontein heads the black list, and brings discredit on the whole community.

Some of the other high-priced mines, at present so much favoured by investors on account of their big dividends, are, from present appearances, likely to go the same way. They are obtaining tremendous outputs, erecting more machinery, neglecting development, and playing the mines for all they are worth, in order to unload, and then in a few months the falling off in the outputs will come like a thunder clap. But more of these mines later on, when I shall be in a position to give data, as in the case of the New Rietfontein, and at the same time warn the public of certain mines that are as well left alone.

In substantiating all I have written as to the directors and their consulting engineer being aware that Lewis's report was correct, I can only reiterate that, had the mine not been in the condition as reputed, then it would not have closed down. If it had been possible to have kept the battery going for another few months there might have been some hope of wriggling out of the responsibility, but it is known thoroughly well that the mill should have closed down months since, in justice to shareholders and the public generally.

Surely shareholders will insist upon some explanation re the secretary's cable of November 27, and subsequent ones in the same strain. They will not bear investigation.

25, Bucklersbury, E.C.

H. Bras, M.E.

THE ALBION COLLIERY EXPLOSION.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—Now that the inquest is ended it may be well to say a few words as to this catastrophe.

Here is a colliery laid out according to the best principles of mining—with over 200,000 cubic feet of air per minute passing through the workings, with a smart set of officials from the agent to the shot-firer. In short, it appears to have been an expensively got up colliery, paying only a moderate dividend on a large capital. Everything had gone on swimmingly for a number of years, when one fine afternoon, to the dismay of all concerned, a frightful explosion occurred, and between 200 and 300 people were killed.

There had been no customs in vogue which had not been in operation for five or six years. The colliery was examined by H.M. Chief Inspector within the last two years, and he had no suggestion to make as to the general management. His assistants had been there within the year, and they had nothing to say. The workmen made examinations, and they had nothing to complain of. I never heard of an inquest where they were more determined to investigate, and they brought out nothing new.

I hope the Government and the owners will not rest until a further enquiry is made, and a set of regulations laid down to prevent, if possible, any similar catastrophe.

It is clear that additional Inspectors of Mines will not be of the slightest use. There are too many already. Everyone knows that improvements in mining have been made not by Government Mining Inspectors, but by engineers connected with mines bringing out improvements. The great thing is to have good regulations, and when these have been properly tested, to make them applicable to all mines. It is here that Government interference does good in making those who lag behind adopt all necessary improvements. Government can never by any number of Mining Inspectors make miners safe. The present explosion shows this most thoroughly, for we have the mine visited within the last two years by the Chief Inspector, and he had no suggestions to make. Now, all of us know what a hard-working and intelligent official the Chief Inspector here is.

What is wanted, perhaps, is to have a committee, say of 12, consisting of 3 M.P.s, 3 scientific men such as Mr. Abel, 3 mine inspectors, and 3 colliery managers. These gentlemen ought to make a report on what additions are necessary to be made to the present general rules, so as to prevent, if possible, an accident such as has unexpectedly occurred, and also to state what additional rules should be adopted.—Yours, &c.,

A MINING ENGINEER.

MANGANESE MINES OF LAS CABESSES.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—All of us here connected with manganese mines thank Mr. G. E. Collins for his timely notice of this district, the province of Huelva, and for his correction as to phosphorus; while if some vague rumours are confirmed, it was possible he may have had some specimens rich in this. The use of the cypher following the decimal two, either in expressing or writing, no doubt caused the misprint, which easily arises, as for instance in my case SO₂ is printed for SiO₂.

Here, and in England, standing forward as the greatest English authority in respect of this province, is the highly esteemed and renowned scientist, Mr. J. H. Collins. Thus it happens that all Members of the Inst. of M.M. who own this famed surname, such as Mr. G. E. Collins, and who are all reputed as pre-eminent in these sciences, carry great weight and importance here and elsewhere, in any remarks they make referring to this district, hence the value of this correction, seeing the industry referred to is a large one, at one time even competing with the Jerro Cobrizo in importance, and may again become so.

While, we presume, Mr. G. E. Collins has made tests of these ores, and is guided by them in fixing his average as to phosphorus, yet this is six to ten times more than is usual with us in the first quality black oxide, at present the only commercial class forwarded, which is well under the fatal allowance down to a trace, and all others state that even with this low allowance they have had no difficulties. In this respect this province can well compete with any part of the world, and it encourages one to overcome the silica difficulty, and not to fear the Chilian ores, or the 66,500,000 tons of Kutais in the Caucasus, in the matter of phosphorus.

At present, we cannot positively fix any average for phosphorus in the carbonate, but so far all tests are favourable, and lead us to expect they will also be as low as the black oxide.

The question as to phosphates originated in being unable to dispose of a calcium variety in the neighbouring province of Badajoz, owing to some difficulty as to the order of gases present, and also as to some rumours as to the finding of Lithophilite and Triphylite.—Yours faithfully,

W. GUTHRIE BOWRIE.

Alosno, Huelva, Spain, August 3, 1894.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ASIA MINOR.—Production to July 21:—Lidjessy Mines, 3404 tons crude ore crushed, yielding 235 tons rich silver lead.

AFRIKANDER.—The return of gold won for the month of July was 281 ounces from 1000 tons milled, and 357 ounces from 1300 tons of tailings treated by cyanide, the total being 638 ounces.

ALADDIN'S LAMP GOLD MINING COMPANY.—The following cablegram has been received from the mine:—"By the Ball mill 497 tons of ore have been crushed during the last four weeks, yielding 25 ounces of gold. The ore is of a friable nature. We have stopped the Ball mill temporarily, as the ore body on the 200 feet level has not paid expenses. The 10 stamp mill, though stopped a considerable portion of the time to concentrate the tailings of the Ball mill, has crushed 81 tons of ore, yielding 127 ounces of gold. We think returns likely to improve judging from the appearance of the 500 feet level."

AUSTRALIAN BROKEN HILL CONSOLS.—The following telegram has been received from the general manager, dated Broken Hill, August 4:—"13 cwt. 501 ounces of silver. There is practically no change."

AMANA.—The following cablegram has been received from the mine:—"Still working on alluvial deposits. The workings show considerable improvement since the date of the last telegram. Samples will be sent at the earliest opportunity."

BARRETT GOLD.—Gold return for July, 227 ounces.

BAYLEY'S REWARD CLAIM.—The following cablegram, dated the 7th inst., has been received from Melbourne by this company's London office:—"700 ounces, 72 tons; good ore is still being found in the bottom of the main shaft 255 feet."

CAYLOMA SILVER.—July production, 8750 ounces fine in ore shipped; 10,760 ounces fine in bullion.

BLOCK B LANGLAAGTE.—Production for July, by cable: Mill: Ore crushed 6897 tons of 2000 lbs., gold retorted 1919 ounces.—Tailings, Cyanide Process: Tons treated 6020 tons of 2000 lbs., gold recovered 955 ounces.—Concentrates, Cyanide Process: Tons treated 110 tons of 2000 lbs., gold recovered 237 ounces; total gold recovered, 3111 ounces.

BRITISH SOUTH AFRICA.—Cape Town, August 8, 6.30 p.m.:—3580 claims at Bulawayo have been transferred from prospectors to companies or syndicates. The total number of claims registered is 16,500. People are entering daily, including many Americans with capital. There is a rush to a new gold mining centre discovered in Guanda.

CITY AND SUBURBAN.—Last month's crushing yielded 6065 ounces, as compared with 3587 ounces for June.

CROWN REEF.—Results for July:—Yield in smelted gold from 120 stamp mill 6903 ounces. Yield in smelted gold from 120 stamps, cyanide works treating tailings and concentrates produced by the mill 2289 ounces. Yield in smelted gold from old cyanide works treating accumulated stock of tailings and slimes 1423 ounces. Total 10,620 ounces.

DE LAMAR.—The following is the cabled return for the month of July:—"Crushed during the month, 3715 tons; bullion produced in the mill, \$71,775; estimated value of shipping ore, \$5500; miscellaneous revenue, \$820; total produce, \$78,095; total expenses, \$34,500; estimated profit for the month, \$43,595, or, at \$4.90 to £ sterling, £8896."

DURBAN-ROODEPOORT.—The following results for July have been received by cable:—"Quartz milled 6625 tons; 70 stamps; 28 days; 3258 ounces. Tailings treated 8390 tons; 28 days; 1906 ounces. Total, 5164 ounces. The last advices report that the work continues satisfactory in all departments."

ELKHORN.—The following is the cabled return for the month of July:—"Mill worked 27 days, and crushed 1050 tons; bullion produced in the mill, \$22,600; 162 tons of smelting ore sold, \$11,700; total produce, \$34,300; total expenses, \$20,146; estimated profit for the month, \$14,154, or, at \$4.85 to £ sterling, £2918." Bullion produced in the mill for the week ending 4th August 9900 ounces.

EL CALLAO.—Messrs. Baring Brothers and Co. (Limited) have received the following telegram from the President of El Callao Gold Mining Company:—"1626 to 1650 ounces of bar gold produced by El Callao Mine for past month. 3001 to 3025 ounces of bar gold produced by Colombia Mine for same period. 10 frs. dividend declared by the Colombia Company."

FERREIRA.—Copy cablegram received from Johannesburg:—"Results for July: Tons crushed, 3882; bar gold extracted, 4352 ounces; concentrates caught, 165 tons; assay value of concentrates, 5½ ounces fine gold per ton.—Cyanide works: Bullion produced from tailings, 1069 ounces."

FORBES REEF.—A telegram has been received from the mines stating that the result for the month of July is 278 ounces of gold.

GOLD FIELDS OF MASHONALAND (Cotopaxi Mine).—A cablegram from the manager states:—"During the month of July mill crushed 375 tons, yielded 86 ounces of gold. Assay of tailings valueless. Details will be mailed in a few days."

GREAT BOULDER PROPRIETARY.—A cablegram has been received stating that water has been found on the Great Boulder Proprietary at 175 feet. Although the company had water rights, it is important that it has been found on the spot. Mr. John Waddington, 35, King William Street, E.C., has been elected a director.

GELDENHUIS ESTATE AND GOLD.—A cablegram has been received from the head office at Johannesburg, stating the following results for last month (July):—"Crushed, 9270 tons; obtained 3548 ounces of gold; profit for month, £2500."

GRAVEL GOLD.—The directors have received the following cablegram of the result of Run No. 8:—"We have cleaned up after a run of 45 days, during which time we have washed 950 hours. The gross returns are £1550. The net profit is £950."

HARQUAHALA.—The following is the cabled estimated return for the month of July:—"Crushed during the month, 3264 tons; estimated gross value of gold produced, \$25,000; miscellaneous revenue, \$500; total, \$25,500; estimated total expenses, \$11,500; estimated profit for the month, \$14,000 (at \$4.90 to £ stg., £2857)."

HENRY NOURSE.—Crushing for July 24 days, 2278 tons, produced 1630 ounces; cyanide works, 1750 tons produced 624 ounces; total, 2254 ounces.

ISLE OF MAN.—The secretary sold on Tuesday 100 tons of this company's ore at £7 15s. 6d. per ton.

JUMPERS.—A cablegram has been received from the head office at Johannesburg stating the following results for last month (July):—"Crushed, 9274 tons; obtained, 4035 ounces of gold, and concentrates equal to 695 ounces of gold. Total, 4730 ounces of gold. Profit, £5500."

JAY HAWK AND LONE PINE CONSOLIDATED.—The directors have received the following telegram from the manager, viz.:—"Estimated return, 7500 ounces; battery assay, 30 ounces. Expect better return this week."

KAPANGA.—The directors have received the following telegram from the manager, viz.:—"Kapanga Section. During the month the shaft has been sunk 27 feet. We have again intersected strings of quartz.—Coromandel Section. There is no material change in the workings since my last message. The tributaries have crushed from the new reef 10 tons; the yield has been 168 ounces of gold. Other tributaries have crushed 3 tons, which have yielded 160 ounces, principally from specimens."

KELLY'S QUEEN BLOCK.—Messrs. Burkitt, Munro, and Co., of 16, Cornhill, E.C., have received a cablegram from Australia that Kelly's Queen Block has crushed 222 tons for 766 ounces, and declared a dividend of 6d.

LANGLAAGTE ESTATE.—Production for July, by cable: Mill: Stamps running 160, ore crushed 23,353 tons of 2000 lbs., gold retorted 6447 ounces.—Tailings, Cyanide Process: Tons treated 21,120 tons of 2000 lbs., gold recovered 3597 ounces.—Concentrates, Cyanide Process: Tons treated 360 tons of 2000 lbs., gold recovered 1171 ounces; total gold recovered, 11,215 ounces.

LANGLAAGTE ROYAL.—Production for July, 1725 ounces from 4918 tons; battery 2294 ounces from 10,965 tons. Cyanide profit, £6500; £2250 spent on extra development. This is 345 ounces better than the previous month.

LE CHAMP D'OR FRENCH GOLD MINING.—The following cablegram has been received from the manager of the mine:—"During the month of July mill worked 30 days, crushed 4500 tons, yielding 2800 ounces; cyanide 4300 tons; yielding 1600 ounces; total, 4400 ounces of gold."

LAS CABESSES MANGANESE.—Production for the week ending 4th August (six working days) 520 tons, or a daily average of 87 tons.

MAY CONSOLIDATED.—The following cable message, dated Johannesburg, 6th August, has been received at this office:—"The yield of gold during the past month (July) was 2062 ounces from 5750 tons crushed. Mill running 29 days. The yield for June was 2059 ounces."

MESQUITAL DEL ORO.—The following cablegram, giving the result of the July mill run, has been received from the mine:—"50 stamps ran (32 days 15 hours); quantity of ore crushed, 3711 tons; bullion produced at clean-up, 829 ounces; value about £3008. Have also remitted copper bar, value about £34."

METROPOLITAN GOLD.—During July crushed 3375 tons, obtained 1100 ounces of gold.

MEYER AND CHARLTON.—Crushed during July 3940 tons obtained 2182 ounces of gold. 816 ounces also recovered from tailings. Total, 2998 ounces. Estimated profit, £5218.

MILLS' DAY DAWN.—The following cablegram has been received from Charters Towers:—"Have crushed during the month 3860 tons of stone for 5243 ounces of gold. Have declared the usual monthly dividend of 6d. per share, payable on August 25. The approximate value of this return is £18,000."

MONTANA.—By cablegram from the mine the directors are informed that the total output for July was, gold 2973 ounces, and silver 24,260 ounces. The estimated realisable value of the same is \$72,800. The tonnage of ore milled during the month was 6370 tons, 110 stamps having been in operation. The expenditure was as follows:—Working expenses on revenue account, \$32,700; outlay on developments, \$11,700; extraneous expenses, \$1700; on permanent improvements account, \$600. Total expenditure, \$46,700."

MOUNT LEYSHON.—The Mount Leyshon (Limited) have received the following cablegram, dated 8th inst., from their manager at Charters Towers, giving the fortnightly crushing:—"1400 tons crushed 228 ounces gold. 40 stamps mill ran 11 days. Profit, £33."

MOODIE'S.—Returns for July: Claims rented or leased from company 247; number of tons crushed by claimholders, 595; yield of gold from ditto, 486 ounces.

MOUNT MORGAN (Queensland).—Results for the month of July:—Tons chlorinated, 6597; gold returned, 9824 ounces.

MYSORE GOLD.—Return of gold for July:—"5250 tons of quartz produced 3189 ounces of gold; 4522 tons of tailings produced 605 ounces of gold; total production for the month, 3774 ounces of gold."

MYSORE REEFS.—Last month's return of gold: 85 tons of ore crushed have yielded 90 ounces of retorted gold. Cannot run mill for want of water.

NEW CHIMES.—Last month's crushing yielded 2416 ounces of gold, as compared with 2398 ounces for June.

NEW CLEWER ESTATE AND GOLD.—Results for July from mill working 23 days crushed 1670 tons, yielding 719 ounces of gold. From cyanide works treated 1610 tons, yielding 993 ounces of gold. Total yield 1712 ounces. Total value £4513. The output for June was 1452 ounces.

NEW HERIOT.—Last month's crushing yielded 4130 ounces, as against 4093 ounces for June.

NEW JAGERSFONTEIN.—Results for July: Diamonds estimated at £24,500; increase of blue, 4500 loads at 1s. 6d., £337; less estimated expenses, as per cable, £19,000; profit for the month, £5887. The cablegram adds: "Water very scarce."

NEW QUEEN GOLD.—Result of crushing for past fortnight: No. 1 formation 260 tons, yielding 330 ounces gold; No. 4 formation 178 tons, yielding 111 ounces gold. Shipping, per s.s. *Dorunda*, 857 ounces.

NEW KLIENFONTEIN.—Result of last month's crushing yielded 2100 ounces of gold, from mill 1620 ounces, and from cyanide 480 ounces of gold. The crushing for previous month yielded 2212 ounces of gold.

NUNDYDROOG.—Return of gold for the month of July: 2500 tons of quartz produced 3109 ounces of gold; 635 tons of tailings produced 118 ounces of gold; total production for the month, 3227 ounces of gold. 1000 north of Taylor's shaft lode 3 feet wide, assaying 4 ounces per ton. Kennedy's shaft 440 south lode 5 feet wide, assaying 3 ounces 15 dwts. per ton.

OOREGUM GOLD.—Last month's return of gold:—3847 tons of quartz produced 4150 ounces of gold; 4868 tons of tailings produced 987 ounces of gold; total production for month, 5137 ounces of gold.

ORION.—The return for June is as follows:—"40 stamps ran for 25 days, crushing 4495 tons of ore, yielding 1476 ounces of gold, and 2538 tons treated by cyanide, yielded 1549 ounces of gold; net profit for month, £45,700."

PAARL CENTRAL.—A cable has been received from the head office at Johannesburg, stating the following results for last month (July). Mill crushed 4070 tons, yielding 1848 ounces of gold. Cyanide works treated 2865 tons yielding 684 ounces of gold. Total 2532 ounces. Total value £8800. The output for June was 2523 ounces."

PALMAREJO.—Return for July: Worked 1550 tons in 25 days, producing \$55,000. Total expenses for month \$32,000. **RANDFONTEIN ESTATES.**—Production for July, 1894:—"By cable: Mill: Ore crushed, 7028 tons, of 2000 lbs.; gold retorted, 2663 ounces. Tailings (cyanide process): 5040 tons of 2000 lbs.; gold recovered, 635 ounces; total gold recovered, 3298 ounces."

ROODEPOORT UNITED.—Crushing for July, 1772 ounces from 3799 tons; 1252 ounces from cyanide works; total, 3024 ounces. Estimated profit, \$4022.

ROBINSON.—Production for July, by cable:—"Mill ran 28½ days. 70 stamps at work. 8657 tons of ore crushed yielded in smelted gold 8555 ounces. From concentrates (by chlorination) 1102 ounces. From tailings (cyanide process) 1473 ounces. From own ore 11,130 ounces. From concentrates bought (by chlorination) 2799 ounces. Total gold recovered 13,929 ounces."

SALISBURY.—Last month's crushing yielded 1700 ounces, against 1850 ounces for June.

SPITZKOP.—The company have received information that a reef has been discovered showing a fine prospect.

TOLIMA.—By cablegram:—"Estimated profit for July over £2500."

TRANSVAAL GOLD.—Working cost for July, £2680.

UNITED MEXICAN.—The directors have received the following telegram:—"San Cayetano: Gross returns for week ended July 28, \$1070; expenses, \$1230; loss, \$160.—El Cubo: Gross returns for week ended July 28, \$3445; expenses, \$6520; profit, \$1925."

VICTORY (Charters Towers).—The London office has received the following cablegram from the head office in Sydney:—"Crushing for the fortnight from No. 1 shaft 43 tons for 33 ounces; crushing for the fortnight from No. 2 shaft 305 tons for 223 ounces; total, 348 tons for 256 ounces of gold."

WAIHI.—Bullion return for 25 days ending July 28, £6500 from 2100 tons.

WOLHUTER.—Crushing for July, 2260 ounces, as against 2420 ounces for June.

WORCESTER.—Result of last month's crushings yielded 2511 ounces of gold. Have declared a dividend of 20 per cent. payable on 5th September to all shareholders registered on the 7th August.

MINING NOTES.

HOME, COLONIAL, AND FOREIGN.

DURING July the output of the five productive mines on the Colar Gold Field, Mysore, was 18,271 ounces, showing an increase of 2812 ounces, as compared with June, and an increase 1595 ounces as compared with July of 1893. The increase is due mainly to the Champion Reef and Nundydroog Mines, each of which has improved on the June returns by over 1000 ounces. In addition to the figures given below, the Mysore Reefs Company produced 90 ounces last month. The production since the beginning of 1890 has been as follows:—

	1890.	1891.	1892.	1893.	1894.
January.....	8,358	10,186	11,674	16,844	17,026
February ...	9,547	10,121	11,780	16,656	15,803
March	9,422	10,117	11,579	27,463	16,080
April	7,853	9,392	11,813	18,287	15,551
May	7,861	10,509	12,488	17,922	16,543
June	8,287	10,746	11,847	16,879	15,459
July	8,081	11,097	13,277	16,676	18,271
August	8,079	11,222	14,854	16,692	—
September...	8,352	11,396	15,529	17,060	—
October	9,360	12,095	15,922	17,440	—
November...	9,770	11,667	15,942	17,557	—
December ...	9,962	11,589	16,435	17,659	—

104,932 ... 130,137 ... 163,140 ... 207,135 ... 114,733

The outputs of the individual mines for the past six months have been:—

	Feb.	Mar.	April.	May.	June.	July.
Ooregum.....	5,905	6,602	6,008	6,666	5,100	5,137
Mysore.....	4,709	4,033	4,184	4,148	3,395	3,774
Champion Reef.	3,099	3,267	3,294	3,503	4,100	5,289
Nundydroog ..	1,728	1,769	1,622	1,720	2,186	3,227
Balaghat	364	409	443	506	678	754

TELEGRAPHIC advices received from Johannesburg by the Union Steamship Company (Limited) state that the gold crushings on the Witwatersrand fields for the month of July were 167,953 ounces. One or more important contributors to the output has not been in full work owing to mining necessities. The following table, taken from the circular issued by the Mining Department of the South African Trust and Finance Company (Limited), gives the crushings to date.

	1889	1890	1891	1892	1893	1894
January.....	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.	Ozs. dwt.
February.....	25,505 12	15,006 15	53,205 8	81,560 8	108,374 8	149,814 0
March.....	22,458 18	36,857 5	50,079 2	66,649 8	93,252 8	151,870 0
April.....	27,019 0	37,760 2	52,949 1	92,441 11	111,474 8	165,372 0
May.....	27,028 18	38,698 19	55,371 16	95,562 0	122,053 0	168,745 0
June.....	35,028 7	38,838 5½	54,673 1	99,436 6	116,911 0	169,773 0
July.....	30,877 13	37,419 10	56,861 1	103,252 3	122,507 0	168,182 0
August.....	31,091 8	39,456 14	54,924 10	110,179 1	126,169 0	167,953 0
September.....	30,519 14	42,363 11	59,073 4	102,322 3	136,069 0	—
October.....	34,143 10	45,485 19	65,601 15½	107,851 13	129,585 0	—
November.....	32,214 6	45,248 17	72,735 8	112,167 8	138,599 0	—
December.....	32,721 16	46,382 18	73,393 15	106,794 15	138,640 0	—
Total.....	39,050 11	50,352 5	80,312 11	117,748 17	146,357 0	—

The amount of gold produced in the year 1887 was 23,145 ounces 8 dwts. Complete monthly totals were not recorded in that year.

THE Castle Line Royal Mail packet, *Dunottar Castle*, sailed from Cape Town, on the 8th inst., with gold to the value of £137,000.

THE *Gympie Miner*, of June 29, states:—Two parcels of alluvial gold from Kilkivan were brought in this week, the amounts being 25 ounces 8 dwts, 12 grains, and 16 ounces 12 dwts, 6 grains.

MR. ALFORD, we learn, is proceeding to Bulawayo to inspect and report upon the coal prospects in the Chartered Company's territories.

A CABLE from Melbourne, dated August 9, gives the following gold statistics for the Bendigo and Ballarat districts for the past fortnight:—Bendigo: Total yield, 6350 ounces; dividends declared, £3737.—Ballarat: Total yield, 7340 ounces; dividends declared, £3550.

WITH the gradual exhaustion of the upper coal seams in Europe, it is found necessary to resort to those at greater depths. In England some very deep coal mining is being done; but this is particularly true in Belgium, where in the Mons districts, shafts have been sunk to a depth of 3775 feet, says the *Engineer and Iron Trades' Advertiser*. At this depth the mining is done at great disadvantage, not so much on account of the increased cost of hoisting, and the added pressure provided against as because of the large volumes of water to be handled and dangerous flows of gas. A product like coal has to be mined with the closest economy to obtain a profit, in view of the small value in proportion to bulk. In America we hear that they have not yet been compelled to go down very deep after coal, and so far most coal mines are relatively shallow, in the West more so than in the East. But it is only a question of time, shorter or longer, when as the more accessible beds are worked out, the existing situation of European coal mining will be repeated. The popular conception that their easily available coal reserves are practically inexhaustible, needs rectifying.

At a large and influential meeting of the colliery owners of Derbyshire, Nottinghamshire, and Leicestershire, held at the Midland Hotel, Derby, convened in order "that the local representatives on the Conciliation Board may fully explain the terms of the settlement of the 19th of July as to miners' wages." Mr. Alfred Barnes presided.—Mr. Salmund and Mr. Deacon, two of the local representatives on the Board of Conciliation attended, and explained fully the settlement arrived at by the Board. The following resolution was passed: "That one-fourth of the advances given since 1888 be taken off all classes of labour above ground and underground."

In the House of Commons, on Tuesday, Mr. Woods asked the Chancellor of the Exchequer whether, with a view of meeting the convenience of members interested in the Mines (Eight Hours) Bill, he could state to the House about the probable time when the Bill was likely to be discussed in its Committee stage.—The Chancellor of the Exchequer said, so far as he could calculate, that stage would be reached on Monday.—Mr. I. Wilson (Durham) asked what probable time would be given to the discussion.—The Chancellor of the Exchequer said he could not offer any opinion on that.

BESIDES the rich mines of nickel, cobalt, chrome, &c., with which New Caledonia is so well endowed, the colony has hailed with sincere pleasure the discovery of good steam coal on the western watershed of the great central range of mountains which runs the whole length of the islands from north to south, says the *Leeds Mercury*. The coal has been tested by the French men-of-war on the station, with satisfactory results. It is impossible yet to determine the value of the coal strata and layers, but the extent of the field is computed to be over 130 miles in length. If the coal is wisely exploited, no doubt it will prove of great benefit to French commerce, as well as to the French navy in Pacific waters, France being entirely dependent in the other hemisphere for her fuel supply on Australia.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

The Marbella Iron Ore Company.

The report of the directors for the half-year ending June 30 is as follows:—The output for the first half of 1894 is, as shareholders are already aware from the published reports, 5062 tons, proceeding mainly from the company's own mines. This unsatisfactory output is owing to the limited number of productive workings in this property, and to the "faulty" nature of the deposit of ore. Every effort is being directed to further develop this property, and "win" a larger output therefrom. Operations in the Leased Mines were recommenced on the 1st March last, and have been directed in the main to re-opening the old working faces, and preparatory work in forming lower working floors. These mines having been left without proper supervision on the part of Messrs. Heredia for a period of 12 months, were, as anticipated, in an unsatisfactory condition, and the work of re-opening has proved to be both difficult, tedious, and costly. The worst difficulties are, however, now surmounted, and a fair output from these mines is confidently expected during the current half of the year. Shareholders will remember a period of six months free of fixed rent was conceded by the lessors to put the mines into working order. The small output, combined with the expenditure on deadwork, charged direct to revenue, naturally causes an unsatisfactory statement of accounts, and your directors regret to announce a loss of £1808 9s. 1d. on the business for the half-year. The revenue account stands as follows on the 30th June:—Balance as per last report £2600 6s. 11d., add returned by directors in March last £120; £2720 6s. 11d.; loss on half-year £1808 9s. 1d., amount at credit of revenue account at 30th June £911 17s. 10d. Expenditure in every department has been curtailed to the lowest limit compatible with efficient working and safety. The iron ore trade continues in a most depressed condition, and prices have ruled exceedingly low. A few orders are on the books of the company, but sales are difficult to effect at present. If the American import duty on iron ore is removed, your directors anticipate an improved market for the company's ore. In accordance with a request made at the adjourned annual meeting of the shareholders held on the 20th March last, Mr. F. P. Obicini, of "Llanfair," Park-road, Beckenham, Kent, has been elected a director of the company.

—The MYSORE GOLD MINING COMPANY (LIMITED) has sold the gold obtained during the month of June, which realised £13,146 8s. 6d.

—The BALAGHAT MYSORE MINES (LIMITED) has sold the gold obtained during the month of June, which realised £2625 13s.

—The NUNDYDROOG COMPANY (LIMITED) has sold the gold obtained during the month of June, which realised £8231 13s.

—The ORO PRETO GOLD MINES OF BRAZIL (LIMITED) have sold the gold obtained in the month of June, which realised the sum of £4517 8s. 8d.

DIVIDENDS ANNOUNCED.

Columbia Gold (Venezuela), 10 francs per share.
English Crown Spelter, 2½ per cent.
Kelly's Queen Block, 6d. per share.
Robinson Gold, 5 per cent.
Tincroft, 2s. per share.
Worcester Exploration, 20 per cent.
Halkyn District Mines Drainage, 6 per cent.
Addie (R) and Sons, 6 per cent.
D. Davies and Sons, 10 per cent.
Abbott and Co., 5 per cent.
Bala and Festiniog Railway, 1½ per cent.
Bank of British Columbia, 6 per cent.
Bank of British Columbia Bonus, 1 per cent.
Belfast Street Tramways, 6½ per cent.
Bellingham and Co., 4 per cent.
Bellingham and Co., Pref., 6 per cent.
Birmingham Central Tramways, 2½ per cent.
Birmingham Central Tramways Guaranteed Stock, 5 per cent.
Brecon and Merthyr Railway, A Debenture Stock, 4 per cent.
Brecon and Merthyr Railway, B Debenture Stock, 4 per cent.
Brunner, Mond, and Co., 30 per cent.
Brunner, Mond, and Co., Pref., 7 per cent.
Bute Docks, 3 per cent.
Canadian Pacific, 5 per cent.
Clarke, Nicholls, and Coombs, 5 per cent.
Clarkson's Old Brewery (Barnsley) 14 per cent.
Clarkson's Old Brewery (Barnsley) Cum. Pref., 6 per cent.
Consolidated Bank of Cornwall, 16 per cent.
Crompton and Co., Pref., 3s. per share.
Cuba Submarine Telegraph, 8 per cent.
Dewsbury, Batley and Birstall Tramways, 5s. per share.
Dewsbury, Batley, and Birstall Tramways Pref., 5s. per share.
Furness Railway, 1 per cent.
Gillman and Spencer, 6 per cent.
Golden Grain Bread Pref., 7 per cent.
Gordon Hotels, 10 per cent.
Gordon Hotels Pref., 5½ per cent.
Great Northern Railway Original Stock, 3 per cent.
Great Northern Railway Pref. Converted, 2 per cent.
Great Northern Railway "B," 3 per cent.
Guinness, Son and Co., 9 per cent.
Illinois Central Railway, 2½ per cent.
Knight and Crowther, 7 per cent.
Knight and Crowther Pref., 6½ per cent.
Lawson (Peter) and Co., 10 per cent.
Leatherhead and District Waterworks, 3 per cent.
Leipzig Tramways, 3½ per cent.
Leipzig Tramways Pref., 3 per cent.
London and North-Western Railway Pref., 4 per cent.
London and North-Western Railway Guaranteed Stock, 4 per cent.
London and North-Western Railway Consolidated 5½ per cent.
Maryport and Carlisle Railway, 5½ per cent.
Mercantile Steamship, 5 per cent.
Merchants' Trust Ordinary and Preference, 4 per cent.
Midland Great Western of Ireland Consolidated Stock, 4½ per cent.
Millwall Dock, 2½ per cent.
Mitchell (Henry) and Co., 11 per cent.
Mitchell (Henry) and Co. Pref., 6 per cent.
National Boiler and General Insurance, 10 per cent.
National Boiler and General Insurance Bonus, 10 per cent.
Redbush Bridge Company, 10 per cent.
Smith, Garrett, and Co., 10 per cent.
South Metropolitan Gas, 13 per cent.
South Staffordshire Waterworks, 5½ per cent.
Spratt's, Limited, 10 per cent.
Stock and Investment Conversion Trust, First Pref., 3½ per cent.
Stock and Investment Conversion Trust, Second Pref., 4 per cent.
Strout's Brewery, 10 per cent.
Vickers, Sons, and Co. (Sheffield) Pref., 2½ per cent.

THE PRINCESS MAY SYNDICATE.—This property consisting of 70 claims is situated 14 miles to the south of the Penablonga Range and in the Zambusi Valley, a distance of 16 miles from Umtali. In a shaft at 42 feet, the reef has been out, dipping at an angle of from 60° to 65° south, and is 14 inches wide. Continuing down to 60 feet, a drive south 8 feet cuts the reef 2 feet wide. The pannings at 42 feet show up to 5 ounces, and quantities of visible gold are to be seen. At 60 feet the stone is also rich, and the reef appears to be making in width. It is the intention of the syndicate to sink to the 100 feet level, and tap the reef again.—*The Umtali Advertiser*.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET—LONDON, AUGUST 10.

Copper.

HOPES of an immediate settlement of the Tariff question in America have influenced our market favourably, and there has been a good deal of speculative demand. Consumers have, on the whole, been less active this week, but towards the close the higher prices have elicited a little more eagerness to pick up cheap lots. The course of business was as follows: On Tuesday, the market opened at £39 three months' G.M.B.'s, £39 2s. 6d. to £39 being done later on, whilst spot changed hands at £38 13s. 9d., £38 15s., and £38 12s. 6d. The day's turnover amounted to about 900 tons. On Wednesday about 650 tons changed hands in an artificially depressed market, s.c. selling at £38 10s. to £38 12s. 6d., and three months at £38 17s. 6d. and £38 18s. 9d. On Thursday there came an improvement to £38 15s. s.c., and this price was again met in a firm market on Friday, whilst three months changed hands up to £39 5s. The close is firm at £38 16s. 3d. to £38 17s. 6d. s.c., and £39 3s. 9d. to £39 5s. three months.

Tin

This article opened firm on Tuesday at £65 12s. 6d. s.c. and £66 5s. three months Straits, and improved to £65 17s. 6d. and £66 10s. respectively. Towards the close of second 'Change, however, the tone grew easier, but recovered on Wednesday, when buying by a leading operator induced a rise to £66 7s. 6d. s.c. and £66 15s. three months. On Thursday this movement continued, a stimulus being furnished by the report that the United States Tariff Bill was about to be passed. Business took place in s.c. at £67 5s. to £67, and in three months at £67 to £67 15s., and then at £67 7s. 6d. To-day there has been renewed buying, and about 260 tons in all have been done, whilst the value has rushed up fully £1 per ton. We close firm at £68 to £68 2s. 6d. s.c., and £68 7s. 6d. to £68 10s. three months. Billiton tin has improved from 39½ fl. s.c. to 40½ fl., closing therat with Banca at 41 fl. The Dutch market has this week been in a firm and rising tendency. There was an active demand as well for consumption as for speculation, but as holders were very shy, not much business was done and prices rose rapidly. Closing quotations on Wednesday were:—Banca, 40½ fl.; next sale, 40½ fl.; Billiton and Straits spot, 40½ fl.; distant, 40½ fl. with buyers; few sellers, ½ fl. higher.

Pig Iron.

The Glasgow market opened on Tuesday at 42s. 4d. s.c. Scotch improved to 42s. 1d. on Wednesday, and to 42s. 1½d. on Thursday, the rate then receding again to 42s. 1d. To-day up to 42s. 3d. was paid for cash, the market closing firm at 42s. 2½d. buyers. Hematite improved from 43s. 7d. to 43s. 11½d., the closing value, and Cleveland from 35s. 4d. to 35s. 7½d. The shipments from Scotland last week amounted to 2564 tons, or 3124 tons less than in the parallel week of 1893. There are now very few blast furnaces in operation in Scotland, and quotations for makers' iron are more or less nominal.

Lead

has been a quiet but steady market, and closes firm at £9 11s. 3d. foreign, and £9 12s. 6d. to £9 15s. English.

Spelter

continues dull, and the quotations are a shade weaker, closing at £15 7s. 6d. to £15 10s. ordinaries, and £15 10s. to £15 12s. 6d. specials.

Antimony

is lifeless, but the value keeps steady at £32.

Quicksilver.

is in improved demand for China, and the second-hand price has risen to £5 19s. Firsts are unchanged at £6.

The following are to-night's (August 10) prices of metals:—

	£	s.	d.	per lb.
Copper.				
Tough cake and ingot	40	15	0	41 5 0
Best selected	41	5	0	41 15 0
Sheets and sheathing	40	10	0	40 10 0
Flat bottoms	51	10	0	52 10 0
Chill bars	38	15	3	39 3 0
Good merchantable, spot, & 3 months respectively	38	15	3	39 3 0
Copper tubes, seamless	—	—	—	0 0 6½
Alloys.				
BRASS: Wire	—	—	—	0 0 6
" Tubes (solid drawn)	—	—	—	0 0 5½
" Sheets	—	—	—	0 0 5½
PHOSPHOR BRONZE: Alloys II.	—	—	—	78 0 0
" " III. or V	—	—	—	81 0 0
" " VII.	—	—	—	83 0 0
" " XI.	—	—	—	78 0 0
" " Vulcan brand A1	—	—	—	72 0 0
DURO METAL	—	—	—	73 0 0
BULL'S METAL	—	—	—	65 0 0
Ferrobronze (Vivian's).				
Ingots	0	0	5½	—
Ordinary sheets, plates, bolts and bars	0	0	6½	—
Screw bolts and nuts	0	0	7½	—
Pump rods, plain	0	0	8½	—
" finished	0	0	9½	—
DELTA METAL: No. 4 (per ton)	—	—	—	73 10 0
" Sheets and plates (per lb.)	0	0	10½	—
" Bars, round, square, flat (per lb.)	0	0	9½	—
" hexagon (per lb.)	0	0	9	—
Tin.				
English, ingots, f.o.b.	70	10	0	71 0 0
" bars	71	10	0	72 0 0
" refined	72	10	0	73 0 0
Straits, spot and 3 months respectively	88	0	0	88 7 6
Australian spot, and three months respectively	88	10	0	88 17 6
Banca (in Holland)	88	15	0	88 17 6
TIN PLATES: Charcoal, best quality	0	11	0	0 15 0
" ordinary	0	11	0	0 11 6
" Coke, best quality	0	10	0	0 10 9
" ordinary	0	10	0	0 10 3
These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.				
Iron.				
Fig. G.M.B., f.o.b., Clyde, spot	—	—	—	2 2 0
" Scotch pig, No. 1 Gartsharris	—	—	—	2 17 0
" " Coltness	—	—	—	2 10 0
" " Clyde	—	—	—	2 10 0
" " Govan	—	—	—	2 3 6
Bars, Welsh, f.o.b. Wales	—	—	—	5 2 6
Plates	—	—	—	5 2 6
Bars, Staffordshire, at works	—	—	—	5 3 0
Sheets	—	—	—	5 7 6
Plates	—	—	—	5 7 6
Ship plates, Middlesbrough	—	—	—	4 15 0
STEEL: English spring	—	—	—	30 0 0
" cast	—	—	—	40 0 0
" Rails at works, according to section	—	—	—	3 12 0
Lead.				
Spanish or soft foreign	—	—	—	9 11 0
English pig, common	—	—	—	9 13 0
" sheet and bar	—	—	—	10 5 0
" pipe	—	—	—	11 5 0
" red	—	—	—	12 5 0
" white	—	—	—	16 10 0
" patent shot	—	—	—	14 0 0
Spelter.				
Silesian ordinary brands	15	7 6	—	15 10 0
" special brands	15	10 0	—	15 12 6
English Swansea	18	0 0	—	18 2 6
Sheet Zinc	18	15 0	—	19 0 0
Antimony.				
Antimony	—	—	—	32 0 0
Quicksilver.				
Flasks, 75 lbs. warrants	—	—	—	5 19 0
Ore, c.i.f., U.K. ports	—	—	—	0 11½
1st quality, 50 per cent. and upwards	—	—	—	0 0 10½
2nd " 47 per cent. to 50 per cent.	—	—	—	0 0 9½
3rd " 40 " 47 per cent.	—	—	—	0 0 8
Aluminium.				
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	—	—	—	0 1 9½
do (1 ton lots)	—	—	—	0 1 9
Nickel.				
98-99 per cent. guaranteed	—	—	—	0 1 8½

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It is not intended only to negotiate the sale of an entire property but
interests in such may be sold or money obtained for development work.

This Company especially solicits the business of making reports
or examinations for non-resident mine owners on any of their mines
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condition and so forth (said reports being confidential).

Those who conduct the business of the Company have had long
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standing of the Board of Directors of this Company.

Descriptions of properties for sale with maps, reports and all
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Abstracts of such reports with prices of mines will be furnished
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This Company will also furnish competent engineers, superintendents,
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GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and
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THE MINING JOURNAL, is neither controlled, nor is any interest in it
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LONDON: AUGUST 11, 1894.

MODERN CONCENTRATING MILLS.

IN our leader of May 26, we described the old-fashioned
costly type of concentrating mills, with the ruins of which
many of our readers are doubtless well acquainted. Few
mills of the modern type have been erected in the British Isles,
while the German manufacturers have almost the monopoly for
work of this sort. Indeed, it would appear that English or
Welsh makers have paid but little attention to the science and
art of ore concentration, and have contented themselves with
following in the rut beaten out by their ancestors in the early
part of the century. Under these circumstances we are obliged
to look for examples of the most perfect forms of modern con-
centrating mills, among those erected by foreign firms, and as the
treatment of ores containing but a single mineral, whether it be
pyrites carrying gold, galena, copper, or zinc, is comparatively
simple, we will take our choice in the more difficult mixed ores,
in which the difference in specific gravity between the various
minerals and the gangue is so slight as to call forth the utmost
skill on the part of the designer of the mill. The mill itself is
usually placed upon a hillside in order that the natural slope of
the ground may be taken advantage of for the automatic con-
veyance of the mineral downwards from one machine to the other.
For this purpose the ground is cut into terraces, on the upper of
which the crushing and hand picking machines are placed, on the
middle the jiggers and fine crushers, and on the lower the slime

dressing machinery. In our opinion this is by far the most suit-
able and economical plan for the arrangement of the plant where
circumstances will admit of it. If, however, the country is flat and
the difference of level cannot be obtained except by constructing a
high mill of masonry, then the only alternative is to use elevators.
Our own experience of elevators, however, has been so unsatisfac-
tory that, as far as possible, we most carefully avoid them. It
is at this point, strange to say, that we fall foul of the Denver
group of engineers practising mostly in the Rocky Mountains.
These gentlemen, with Mr. PHILIP ARGALL, an eminent and
well known authority, at their head, have abandoned the old
system just explained of building a mill in terraces, and prefer
to build it on the flat. Their argument is that with modern
improved elevators, the cost of maintenance of a flat mill is less
than the amount of the interest of the money spent in the con-
struction of terraces, and that, therefore, a flat mill is the more
economical. For our part, we fail to appreciate their argument,
and contend that it is cheaper and handier to allow the stream
of crushed ore to run as a stream of water, downhill through the
various machines, than to be constantly elevating it in order to
gain the head which is absolutely necessary.

Whichever plan is adopted, the sequence of the machines is the
same. First of all the ore as it comes from the mine is tipped
down a grizzly or screen of iron bars into the rock breakers.
These are usually of the well-known Blake type, although if it
is desired to at once reduce the ore to a small size, the Dodge
is perhaps preferable. The difference between the two is that
in the Blake the crushing is done by the opening and closing of
the lower part of the jaw, which is swung from the upper end,
while in the Dodge the jaw is swung at the lower end which
remains practically stationary, the crushing being done at the
upper end or mouth. The type of breaker to be employed, as
well as the whole system of crushing and classification in the
mill, depends upon the size of the mineral grains in the ore. The
crushing should be conducted with a view to the liberation of
these mineral grains or crystals from the gangue without
pulverising them, so as to avoid the formation of
slimes. It is even better to stop the crushing before
the mineral is quite freed from the gangue, although
this will prevent the production of such concentrates, rather
than risk the loss of precious metals in slimes. After leaving
the crusher the ore passes through a coarse sorting trommel,
which removes the fine gravel and sand, and at the same time
washes the remainder clean and bright, thus enabling the hand-
picking which next follows to be easily and carefully
conducted. There are two kinds of picking tables; the
one consists of a long hempen belt, upon which
the washed ore is conveyed for several yards between
two lines of sorters, while the other is a rotating table, which
carries the ore before a row of sorters placed around its circum-
ference. It is obvious that this latter table cannot accommodate
as many persons as the former, and consequently the ore
upon it cannot be so carefully picked. Personally, if circum-
stances will admit of it, we prefer a long slowly moving
hempen belt, as by this means the bulk of the
rich ore, as well as a large portion of the sterile gangue
can be removed, thus relieving the rest of the machinery,
and at once obtaining a marketable product. The whole of the
ore which has passed through the grizzly and the washing
trommel, as well as that delivered at the end of the picking table,
is now collected together in the shoot of the main pair of crush-
ing rolls. These differ from the old type of rolls described in
our former leader, in that they are of larger diameter, revolve
quicker, and are provided with rubber buffers instead of the
weighted levers. The pressure can thus be readily adjusted to
suit the size to which it is proposed to crush the ore, which is
fed to them in a continuous stream regulated roughly by the
speed of the picking table. Leaving the rollers, the next pro-
cess is that of classification by means of revolving screens or
trommels, and here the skill of the specialist is brought into
play to determine the number and sizes of the dif-
ferent grades into which the ore is to be divided.
It is impossible to give a hard and fast rule for the
sizes of the holes and the degree of classification, as these of
necessity differ with the variety of mineral to be treated, its
friability, and distribution in the gangue. RITTINGER, a first-
class German authority, adopts 1 millimetre as the unit of the
holes in the trommels, and the progression beyond this is geo-
metric, as 1, 2, 4, 8, 16 millimetres, giving for the volume of the
grains which pass the holes respectively 1, 8, 64, 512, 4096 cubic
millimetres. He then divides these sizes of holes into four
grades:—No. 1, rough stuff; No. 2, coarse stuff; No. 3, coarse
sand; No. 4, fine sand and slime, and each of these grades into
four divisions of coarse, middling-coarse, middling-fine, and fine.
The subject of classification is one upon which volumes have
and can be written. The coarse classification is effected by
means of trommels, and the fine by means of hydraulic classifiers
and spitzkasten, examples of which will presently be given. The
tendency of the German practice is towards extremely close and
careful classification, and undoubtedly the best results are ob-
tained by this method. The Cornish and Welsh system was
formerly rough and ready and wasteful, but we believe that
the recent teaching of the Mining Schools has caused greater
attention to be paid to this important subject. After classifica-
tion in the trommels the ore falls down shoots to the jiggers, of
which there are one or more, according to the quality of the
ore, for each trommel. The duty of the jigger is to separate
the rich and heavy particles of mineral from the lighter gangue,
and this it accomplishes by taking advantage of their specific
gravities. The greater this difference, the better will be the
results obtained, while the number of compartments into which
the machine is divided depends upon the nature of the ore.
Jigging is almost an art by itself, and requires a thoroughly trained
man to work the machines to the greatest advantage. The speed,
the length of the stroke, the thickness and quality of the beds and
the quantity of water and ore fed into the machines are all

questions which can best be decided in practice. Once these matters settled, and provided there is no change in the nature or size of the ore, the jigger will continue to concentrate the mineral without further attention being paid to it beyond the removal of the products, the oiling of the bearings, and the periodical cleaning of the beds. Hitherto we have dealt only with coarse concentration, to which we shall for the present confine our remarks, taking up the subject of fine concentration at a future date. Roughly speaking, the boundary line between the two is at the close of the jiggling process, although now that these machines have been perfected they are employed fairly within the limits of fine concentration. The coarse ore, as we now for the present leave it, is in the state of rich concentrates, middlings, and steriles. The former are removed to the magazine while awaiting shipment, the latter are thrown away, and the middlings are sent back to the mill to be re-ground, but not through the same pair of rolls. Now the tailings or waste heaps of abandoned mines often contain a certain amount of mineral, which would pay to re-crush and concentrate with modern appliances. They are in the condition of the middlings obtained from the jiggers in the mill under description, and the process of treating them will be similar to that which, from this point, the middlings will undergo, so that those of our readers who are interested in this question can take up the question with us from this point in a future issue. It must be borne in mind, however, that the "middlings" proceed on their way generally under the same roof as the original ore, while for the treatment of old tailings a new mill would of necessity have to be erected, starting at the re-crushing machinery.

The difficulties of concentration naturally increase as the ore becomes finer, and with these increased difficulties comes increased loss. Every effort, therefore, should in the first place be made to avoid crushing the ore beyond the point at which it will separate from the gangue. If this is not done, and the ore is indiscriminately reduced to powder, the amount of slimes to be concentrated will, of course, be great, and the loss in concentration equally great. With some ores fine crushing is unavoidable, owing to the mineral being finely dispersed amongst the gangue. The modern mill manager, however, should so design his mill that the ore is crushed gradually, the rich products being extracted between the crushings, and not, as is too often the case, smashed up to powder, and sent on with the slimes to the fine concentration department. The motive power used is one which circumstances and situations will decide. If fuel is cheap and water scarce, then an engine must be used, while abundance of water will, of course, lead to the adoption of some form of water motor. For utilising large quantities of water at a low head, there are many forms of turbine which will answer the purpose, and if the quantity is small, and the head and pressure great, the Pelton wheel is the most advantageous. In some cases, owing to summer droughts, both steam and water power are employed, while in high altitudes and northern climates steam has this advantage, that the waste heat can be utilised for warming the mill and keeping the machines from being frozen up. We would lay stress upon the point that the same motor, whether it be water or steam, should not be used for driving the whole mill, as the irregularities in speed caused by the rock-holders and crushing rolls are most prejudicial to fine concentration, the machinery for which should run at a uniform speed if it is to do its work economically and with efficiency. In both cases an excess of power should be provided in order to allow for the addition of extra machinery if such should be required. We have recently had an opportunity of visiting several mills driven by electricity, the original motor being a turbine situated several miles away. The results were quite satisfactory, and the system had been at work with inexperienced men for many months without any breakdown or other mishap. There is an extensive opening for the introduction of this motive force at mills situated far from any available water supply.

NOTES AND COMMENTS.

THE importance of the gold mining industry to the whole continent of Australia cannot possibly be over-estimated. For the matter of that its importance to the progress and welfare of the whole world cannot be exaggerated. But confining oneself entirely to Australia for the moment, the Governments there, as well as all the inhabitants, are keenly alive to the energetic efforts now being made to resuscitate and foster the mining industry. Along with every other country on the globe the various colonies of Australia have passed through a period of depression and gloom not easily forgettable. Theirs has, however, been acutely intense, and it is not to be wondered at that they are willing and ready to welcome any effort likely to hasten the prosperity for which they are hungering. They pretty clearly see that the gold mining industry possesses in itself, perhaps, the greatest potentialities for this end. A prosperous industry can very easily lighten their burdens, and hence their energy at the present moment in giving every encouragement to foster it. Amongst the Governments who are anxious to do what they can in this direction that of Western Australia is conspicuous. Their latest action is the borrowing of money to build needed railways to the various gold fields, the significance of which, of course, is very plain.

THE Queensland Government, through their wise action on behalf of the mining interests in the colony, are naturally attracting much favour. It cannot be said that in the past they have been particularly liberal towards the industry, or have striven with commendable energy to assist its progress by the powerful machinery that is placed in their power. It would seem, however, that they are at length awakening to the fact

that not a little of the prosperity of the colony depends upon its mineral resources. The special sign they have lately given of their wide-awakeness is expressed in the statement of the Minister for Mines that a sum of money will be placed on the Estimates to assist deep sinking on gold fields. Of course, this is a highly important step, and one deserving of commendation. There are many fields in this growing colony ready to reap the advantages of such an operation. "One of the fields," says a contemporary, "that has overwhelming claims to participation in any aid given by the Government to test its deep ground, is the Hodgkinson; and already the residents of that district have moved in the matter. The Hodgkinson is one of the largest gold fields in the colony; had, perhaps, the finest surface shows of golden stone ever seen in Queensland, and had produced, roughly, a quarter of a million ounces of gold." Besides this there are, of course, many other promising fields.

THE action of the Tasmanian Government in arresting a man for alleged salting of a mine is likely to give occasion for much controversy throughout the mining world. It is certainly, as far as we know, unparalleled in the history of mining. It is a matter for interesting speculation as to how far the Government will be sympathised with in their action. In the colony itself, great surprise has been felt, which is not, of course, unnatural. For our own part, we are inclined to think that such an action should be punishable by law. It is villainy in the lowest sense of the word, and not infrequently brings ruin in its train. In May last news was received of a sensational find of gold at Mount Huxley, on the west coast of Tasmania, the alleged discoverers of which were Mr. Isaac Barker and two men named Tony and Price. A syndicate was speedily formed to exploit the place, the capital of which was over-applied for, but it was not until Mr. Montgomery, the Government Geologist of Tasmania, visited the field that any doubt was placed on the genuineness of the find. His report, however, was so much doubted that he was dispatched a second time, with the result that he more than confirmed his previous opinion, and stated plainly that the tunnel had simply been salted from end to end. However, the shareholders of the syndicate were still unconvinced, and decided to send out their own experts. Their reports are not yet to hand. In the meantime, Mr. Isaac Barker has been arrested on a charge of having conspired with others to defraud by salting the tunnel at Mount Huxley.

FOR the Loma Gold Mines, the past year has been one of not altogether favourable vicissitude, in view of which the record of the year's operations is, as the directors remark, not at all an unsatisfactory one. There have been occasional breakages at the mines and occasional floods. Moreover, a large outlay has been devoted to repairing the new ditch line, over which there has been considerable trouble. Under these circumstances the quantity of gold produced is about what might have been expected, while the last hindrances to the profitable working of the company's mines seem to have been removed. Considered in the light of its difficulties and its accomplishments, the year's work is, on the whole, a favourable one, and the excess of mine expenditure over gold produced, though to be deplored, is not of a magnitude to cause any serious uneasiness. This considerable decline in the mine expenditure, compared with that of last year, is a very hopeful sign. For the rest, the company now starts its operations for the ensuing twelve months with no obstacles to its progress, and the next balance sheet should be a marked advance upon this one.

LITTLE in the nature of a surprise occurred at the statutory meetings of the Mysore West and Mysore-Wynnad Companies for those who have attentively followed the course of things during the past few months. Mr. Robert Walker's hopeful tone of speech was merely an emphasising of the encouraging tone of the despatches recently received from the mine. No ebullient enthusiasm was awakened by the matter in the statement from the chair. Past losses were, perhaps, still too prominent in the mind for free play to be given to any unmistakable expression of confidence in the future. For ourselves we should like to believe that the failures already incurred will not repeat themselves, but in candour it must be confessed that little transpired on Wednesday to place this possibility at all beyond question. Neither the cables from the other side nor the speeches from the chair were sufficiently full and definitive to offer any sort of safeguard for satisfactory results. In the contiguity of the Nunddydroog Mine and the probability that Nature—using the ordinary personification—has dealt similarly with the two mines is some considerable satisfaction. Such a view, however, casts a full responsibility upon the management for the attainment of success.

IN view of the low price to which spelter has fallen, the past year's accounts of the English Crown Spelter Company are much more satisfactory than might have been anticipated. It is the old story over again of a concern—which under more favourable conditions of market would yield handsome dividends—fighting hard against meagre prices. For 1893 the average price fell to £18 13s. per ton. There is no small credit due to the directors in the fact that they have managed by careful supervision and rigid economy to make a small profit. Added to the other disadvantages there is the fact that the output for the 12 months was somewhat smaller, compensated, however, in some degree by a higher grade of ore. Thus the heavy loss anticipated owing to the low rates has been turned into a profit and a dividend. Economies have been effected all along the line in mine costs, hauling, and Swansea charges, and it is chiefly, if not wholly, owing to this that so favourable a result has been obtained. The future is not at all unfavourable in appearance. The ore continues to improve in quality, while the output is increasing. The present depression in the metal market, moreover, can hardly continue for long, and in the event of a revival, the company will be the first to reap the full benefit.

No very hopeful state of the country's commerce is revealed by the Board of Trade returns for July. Substantial decreases upon the figures of last year are shown both in exports and imports. In imports the shrinkage amounts to £1,447,000, or rather over 4 per cent., while in exports it is £1,252,000, or more than 6½ per cent. Unfavourable contingencies of international policy are not at all mitigated by the fact that our imports and exports do not balance each other. Nor is it any satisfaction to know that, comparing the statistics of the past seven months with those of the corresponding period of last year, while our dependence on foreign sources of supply has displayed a strong tendency to increase, there has been a clearly marked decrease in our export trade. This growth of our dependence for supplies upon foreign countries is not at all comforting. Too much importance, however, must not be attached to these fluctuations. Calculated comparatively they do not appear at all overwhelming, and a change in the conditions of trade—such a modification of the American tariff, about which so much is constantly written and spoken—would be sufficient to work a considerable difference in these figures. There are indications in the returns that our business is not at its highest magnitude, but here and there some hopeful signs are apparent. British trade with the Continent and the East remains robust enough, and the prospects for the Autumn trade generally are not at all discouraging.

It is quite refreshing, considering the tendency of patriotism to eulogise in extravagant terms the superiority of its native land over that of any other country, to listen to it uttering its pretensions in sober and common-sense language. Of late a great deal of information has been published respecting the gold wealth of British Guiana, until we have almost come to look upon it as a promising El Dorado. The *Daily Chronicle* of Demerara has done not a little to advocate its claims to the attention of the mining world, and not without conspicuous success. We might, indeed, say that this paper embodies the patriotism of the country. It has concentrated the essence of it, as it were, and the result has been admirable and beneficial. To quote its own words in a leading article commentary upon a report of Mr. E. P. Wood, the Commissioner of Mines, it has accustomed itself to give "a plain, straightforward statement of literal fact, exaggerating nothing, magnifying nothing, representing things exactly as they exist at the moment, recording what has actually been accomplished in the past, and indulging in no foolish vaticinations of a golden future which may or may not be realised." It were well if such a policy were followed by the Press of other mining centres, for we should not be so liable to be carried away by misleading notions.

THE article in question, which is a characteristically able one, gives a very truthful idea of the present position of gold mining in British Guiana. The gold industry, it says, will in the future, no doubt, turn out well, but at present it is confronted with the circumstance that if there has not exactly been quite as much failure as success connected with it, it has not turned out the Eldorado that visionaries some few years ago so confidently predicted. This is the candid expression of opinion which we like. The writer summarises Mr. Wood's opinions and conclusions in a very interesting manner. The latter states that it is impossible to pronounce any opinion as to the permanent or superficial character of the reefs. "Everything," he says, "would point to there being an exceedingly rich reef district, and the chief thing needed is a class of men that understand mining." With this latter expression of opinion mining engineers will be inclined greatly to sympathise. This is a want from which nearly every mining district in the world suffers; it is a want, too, that can be easily obviated. At the present moment there are, unfortunately, too many "men that understand mining" forced to lead idle lives for want of employment. We hear almost daily of the disastrous results attending incompetent management. We can lament it; we can cry the system down; but to remove it we are almost powerless.

No doubt it will be very interesting to most of our readers to know what they think of this out in Demerara. Their opinions differ in no particular from the reasonable and stereotyped one. The article in question says:—"Now we consider that in this sentence Mr. Wood has hit precisely the right nail upon the head. It is a matter of considerable importance, and one to which those who have embarked or intend to embark money in gold mining enterprises should pay very particular attention. Without specially indicating any particular project, or making invidious allusions or comparisons, we have not the least hesitation in saying that schemes have been wrecked, and money wasted all through lack of ordinary circumspection. It is not sufficient to take the *ipse dixit* of every wandering adventurer who comes into the colony and asserts that he is a mining engineer. What business man of ordinary capacity, we should like to know, desiring the services of a manager for an important concern, would repose implicit faith in the unsupported word of any stranger who came along and chose to state that he had had that experience which is essential to the successful conduct of any enterprise. If any merchant or commercial man were so foolish as to employ a servant whom he meant to place in an important trust, without subjecting his character and his past history to a most searching analysis, it would only serve him right if he were swindled of his property, and his business were mismanaged. Yet, we have not the slightest doubt that men, who, in the ordinary concern of life, are as keen as razors, and as discreet and cut as they possibly can be, immediately they begin to dabble in gold lose their heads; neglect the most ordinary precautions, and act with a blind fatuity such as we should be surprised to see in the veriest commercial tyro." And yet the very persons who blindly in disaster are those who turn the deaf ear to reason.

SOUTH AND CENTRAL AMERICAN MINES.									
Anglo-Chilian MIN Co. 5% RydMB	42 5/8	5 1/2	10 0	—	10 0 0	35,000	Antofagasta	123, Bishopsgt.-st. W.	
Antio. (Pref.) G.S.	82 85	85	100 0	—	100 0 0	42,600.00	Antofagasta	123, Bishopsgt. W.	
Antioquia (ordiny)	—	—	1 0	-/8 Mar. '80	1 0 0	28,232	Colombia	184, Gresham Ho.	
	—	—	1 0	—	1 0 0	42,453	Colombia	184, Gresham Ho.	
Callao Bie. G	-/9 1/3	1/3	1 0	—	1 0 0	318,248	Venezuela	50, Old Broad-street	
Camarones	—	—	2 0	—	2 0 0	67,000	Chili	123, Bishopsgt. Wn.	
Caratal	-/3 -/8	-/7	2/8	—	0 2 4	1,330,503	Venezuela	57, Moorgate-st. E.C	
Cayalla	—	—	2 0	1/- Apr. '94	2 0 0	125,000	Peru	55, Leadenhall street	
Coton	-/3 -/8	-/8	2 0	—	5 0 0	300,000	Chili	5, Copthall-bldg. E.O.	
Cordoba Nit. G	3/4 3/8	3/4	—	4 1/2 June, '94	5 0 0	32,000	Chili	12, King-st. Liverpl.	
Colombia	—	—	20 0	10 fms. Aug '94	20 0 0	—	Venezuela	Ciudad, Bolivar.	
Colombia Hy. G.	12/- 13/-	13/-	1 0	1/- April '94	1 0 0	75,000	Colombia	10, Blomfield-street,	
Coplaso	13 1/2 14 1/2 xd	14 1/2 xd	2 0	1/8 June '94	2 0 0	100,500	Chili	Dashwood House, E.O	
Darwin	—	—	1 0	—	1 0 0	71,359	Colombia	Manchaster.	
Don Pedro	2/- 3/-	4/8	1 0	—	0 16 8	133,102	Brazil	24-5, Devonsh, C.S.E.C	
El Callao	12/6 17/8	17/8	5 0	9 1/2 Feb. '94	5 0 0	867,600	Venezuela	8, Bishopsgt.-st. Wn.	
Frontino & B. G	21/- 23/- xd	22/- xd	1 0	1/3 June, '94	1 0 0	128,682	Colombia	184, Gresham House.	
Glenrock	2/- 2/8	2/-	—	—	0 18 8	199,948	Argen. & Ind	3-5, Queen-street, E.O	
Glenrock (Pref.) .. G	—	—	1 0	—	0 18 8	16,232	Argen. & Ind	3-5, Queen-street, E.O	
Gravel	4/8 5/8	5/8	1 0	—	0 39 6	120,000	Colombia	10, Blomfield-street	
Guadalupe	3/8 5/-	5/-	1 0	—	5 0 0	120,000	Honduras	11, Unienst. Old Street	
Huanchaca	—	162 3/4 fms	5 0	3/9 Oct. '93	5 0 0	320,000	Bolivia	130, Avenue d'Alme, Paris	
Iavali	—	—	0 2	3/4 '91	0 2 0	105,224	Wicargus	130, Cannon-street	
Lalla Wit. N	—	—	0 2	—	5 0 0	39,000	Chili	29 1/2, Gracechurch-st.	
Lataco	5 1/2 5 1/2	5 1/2	5 0	5/- Jan. '94	5 0 0	55,000	Chili	70, Gracechurch-st.	
Liverpool	10 1/2 11 1/2	11 1/2	5 0	10/- Feb. '94	5 0 0	22,000	Colombia	9, Gracechurch-st.	
Loma	-/8 1/4	1/-	1 0	—	1 0 0	300,000	Chili	5, Copthall-building.	
London Nit. G	1 1/2 2/-	2	3 0	3/4 1/2 Nov. '80	5 0 0	10,000	Chili	9, Gracechurch-st.	
London Nit. (Pref.)	3 3/4	3 1/2	6 0	5/- May, '94	5 0 0	22,000	Chili	9, Gracechurch-st.	
Macato	1/3 1/9	1/9	0 2	—	1 0 0	200,000	Peru	11, Old Broad-st. E.C	
Man Tamarang	7/8 8/8	7 1/2	1 10	3 1/2 p.c. July '94	1 10 0	135,000	Tarapaca	55, Lime-street, E.O	
No. 8 1/2 Gum Pref	16/- 18/-	18/-	1 10	8 p.c. July '94	1 10 0	130,303	Tarapaca	50, Lime-street, F.O	
Ortiz	7/8 7/8	7/8	100 0	1/- April '89	1 0 0	30,000	Colombia	56, 1/2-me-street, E.O	
Ouro Preto	1/- 2/-	2/8	1 0	—	0 15 8	80,000	Brazil	10, Blomfield-street.	
Pac. & Jazpampa N	3 1/2 3 1/2	3 1/2 xd	5 0	—	5 0 0	72,000	Tarapaca	6, Queen-street-place	
Panaleillo	—	—	2 0	1/- Nov. '89	2 0 0	115,500	Chili	3, Gracechurch-st.	
Primativa	3 1/2 3 1/2	3 1/2	5 0	2 1/2 Oct. '93	5 0 0	40,000	Chili	13, Great St. Helens.	
Quebrada	3/8 4/3	7/8	2 0	5 1/2 Mar. '92	5 0 0	241,956	Chili	Liverpool.	
Quebrada	5 5	8 1/2	8 1/2	—					

"THE MINING JOURNAL" SHARE LIST—(Continued).

SOUTH AND CENTRAL AMERICAN MINES—(Continued).

Name.	Closing Price, Aug. 10, 1894.	Closing Price, Aug. 5, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Santa Barbara...G	—	—	—	1/3 Dec. '88	—	60,000	Brasil	Liverpool
Santa Elena...N	3 1/4	3 1/4	—	5/2 Nov. '93	—	22,000	Tarapaca	3, Gracechurch-st.
Santa Rita...N	3 1/4	3 1/4	—	15/2 Apr. '94	—	20,000	Chili	Dashwood House, E.C.
San Sebastian...N	1 1/4	2 1/4	—	1/8 May '94	—	28,000	Chili	Dashwood House, E.C.
Segovia...G	—	—	—	—	—	160,000	Colombia	5, Copthall-building
Sore Pref...G	—	—	—	10/2 July '94	—	840	Colombia	23, St. Swithin's-lane
Sucre Ord...G	—	—	—	—	—	10,000	Colombia	23, St. Swithin's-lane
Tellima...G	8 1/2	8 1/2	—	10/2 June '94	—	14,000	Colombia	5, Copthall-building
Tellima...G	7 1/2	7 1/2	—	10/2 June '94	—	6,000	Colombia	18, Finsbury-circus
Vic. & Altamira...S	—	—	—	—	—	700,000	Venezuela	Broad-st. Avenue
West Indian...G	—	—	—	—	—	261,422	Equador	49, Queen Victoria-st
Zaruma...G	—	—	—	—	—	—	—	1, St. Winchester-st

AFRICAN MINES.

Africkunder...G	20/-	22/6	21/3	—	—	1 0 0	40,000	Transvaal	19, St. Swithin's-lane
Agnes Block...G	9/-	11/-	11/-	—	—	1 0 0	78,507	Transvaal	54, Old Broad-street
Appamoo...G	—	—	—	—	—	1 0 0	71,000	West Coast	9, New Broad-street
Aurora West...G	4/-	6/-	6/-	5/2 Mar. '93	—	1 0 0	65,000	Witwatersrdt.	8, Old Jewry-I
Aurora West...G	5/-	7/-	6/-	5/2 Mar. '93	—	1 0 0	80,000	Witwatersrdt.	1, Crosby Square-I
Balks Eersteling...G	—	—	—	—	—	0 9 8	520,000	Transvaal	25, Gracechurch-st.
Balks Land...G	1/3	1/6	1/6	—	—	0 10 0	520,000	Transvaal	25, Gracechurch-st.
Banket...G	—	—	—	—	—	0 10 0	200,000	Witwatersrdt.	5, Gracechurch-st.
Bantjes Reef...G	14/6	15/6	15/6	—	—	1 0 0	83,000	Witwatersrdt.	Warnford-court-I
Barrett...G	2/6	3/6	3/3	—	—	0 9 0	207,493	De Kaap	17, Basinghall-street
Bechnanland Exp...G	25/6	25/6	25/6	—	—	1 0 0	200,000	Bechnanland	19, St. Swithin's-lane
Black Reef (New)...G	5/6	6/6	6/6	—	—	1 0 0	76,000	Witwatersrdt.	9, King William-st
Block "B" Lang...G	5/-	6/-	6/-	—	—	1 0 0	535,000	Witwatersrdt.	8, Prince-st. E.C.
Booyen Land...N	6/-	8/-	8/-	—	—	0 11 0	95,000	Transvaal	4, Tokenhouse-bldg.
Do, Pref...G	—	—	—	—	—	1 0 0	2,000,000	S. Africa	19, St. Swithin's-lane
Brit. S. A. Char...G	33/6	34/6	34/6	—	—	1 0 0	250,000	Potchefstroom	8, Old Jewry
Buffelsdoorn...G	27/-	29/-	27/-	—	—	1 0 0	250,000	Matabeland	10, Helen's Place
Bulawayo Synd...G	7 1/2	13/6	20/-	—	—	1 0 0	12,000	Matabeland	10, Helen's Place
Cape Copper...G	1 1/4	1 1/4	1 1/4	1/3 June '94	—	2 0 0	300,000	Cape Colony	9, Queen-street-place
Do, S. Pref...G	1 1/4	1 1/4	1 1/4	1/3 June '94	—	2 0 0	45,000	Cape Colony	9, Queen-street-place
Cent. Montrose...G	1/-	2/-	2/-	—	—	0 18 6	69,000	Transvaal	15, George-st. Mo Ho
Champ d'Or...G	1 1/4	1 1/4	1 1/4	—	—	1 0 0	116,018	Transvaal	8, Old Jewry, E.C.
Champ d'Or Deep...G	8/6	9/6	9/6	—	—	1 0 0	275,000	Witwatersrdt.	For st., Johannesburg
City and Suburb...G	14/6	14/6	14/6	—	—	0 5 0	75,000	Witwatersrdt.	1, Crosby Square-I
Coetseboom...G	26/-	27/-	27/-	—	—	0 5 0	140,000	De Kaap	105, Leadenhall-street
Con. Deep Level...G	1 1/4	1 1/4	1 1/4	5/2 Nov. '89	—	1 0 0	721,500	Transvaal	62, Lombard-st.
Con. G. Fields S.A...G	2 1/4	2 1/4	2 1/4	4/- June '94	—	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Do, S. Pref...G	2 1/4	2 1/4	2 1/4	10/2 Nov. '93	—	1 0 0	250,000	S. Africa	8, Old Jewry
Crown Reef...G	8 1/2	8 1/2	8 1/2	25/2 May '94	—	5 0 0	6,000	Witwatersrdt.	8, Old Jewry
De Beers Consol...G	14 1/2	14 1/2	14 1/2	12/6 June '94	—	5 0 0	120,000	Witwatersrdt.	22, Austin Friars-I
Do, S. Pref...G	10 1/2	10 1/2	10 1/2	5 1/2 Feb. '94	—	5 0 0	21,875,000	Transvaal	62, Lombard-street
Do, S. Pref...G	10 1/2	10 1/2	10 1/2	5 1/2 Feb. '94	—	5 0 0	272,100	Transvaal	62, Lombard-street
Durban Roodep...G	5 1/2	5 1/2	5 1/2	3/- June '94	—	1 0 0	2125,000	Witwatersrdt.	28, Leadenhall-bldg.
East Rand...G	11/-	12/-	12/-	—	—	1 0 0	570,000	Witwatersrdt.	170, Winchester-ho.
Evelyn...G	—	—	—	10/2 Jan. '89	—	1 0 0	66,000	Witwatersrdt.	28, Old Jewry, E.C.
Exploration...G	15/-	20/-	20/-	1/- Dec. '93	—	0 4 0	14,000	S. Africa	30, St. Swithin's-lane
Exploring Co...G	4 1/4	4 1/4	4 1/4	25/- Feb. '94	—	1 0 0	49,350	S. Africa	19, St. Swithin's-lane
Ferreira...G	7 1/4	7 1/4	7 1/4	10/2 June '94	—	1 0 0	45,000	Witwatersrdt.	45, St. Swithin's-lane
Forbes Reef (N.W.G.)	3 1/2	3 1/2	3 1/2	—	—	0 19 0	105,000	De Kaap	45, St. Swithin's-lane
Goldenbush Deep...G	5 1/2	5 1/2	5 1/2	20/2 Mar. '94	—	1 0 0	187,500	Witwatersrdt.	29, St. Swithin's-lane
Goldenbush Est...G	7/6	8/6	8/6	—	—	1 0 0	150,000	Witwatersrdt.	29, St. Swithin's-lane
Do, Main Reef...G	17/6	20/-	21/3	—	—	1 0 0	112,750	Witwatersrdt.	Warnford-court, E.C.
George and May...G	31/6	32/6	32/6	—	—	1 0 0	200,000	Witwatersrdt.	Johannesburg
Gold Estates...G	3/6	3/6	3/6	15/2 Dec. '89	—	0 10 0	200,000	Transvaal	2, Drapers-gardens
Gld. Fie. Deep...G	12/6	12/6	12/6	—	—	1 0 0	600,000	S. Africa	8, Old Jewry
G. F. of Mashond...G	2 1/4	2 1/4	2 1/4	—	—	0 4 0	400,000	Mashondland	19, St. Swithin's-lane
G. F. of Mashond...G	7/6	8/6	8/6	—	—	1 0 0	150,000	Mosambique	2, Tokenhouse Bldg.
Grahamstown...G	—	—	—	15/2 Mar. '91	—	0 5 0	500,000	Witwatersrdt.	14, Throgmorton-st
Graskop...G	—	—	—	4/2 March '94	—	10 0 0	105,700	Lydenburg	55, Gracechurch-st
Griqualand W...G	8 1/2	7 1/2	7 1/2	—	—	1 0 0	105,700	Transvaal	62, Lombard-street
Henry Nourse...G	2 1/2	3 1/2	3 1/2	—	—	1 0 0	100,000	De Kaap	Warnford-court
Heriot (New)...G	1/-	2/-	2/-	—	—	1 0 0	57,404	Witwatersrdt.	11, Queen Vic-st.
Joe's Luck...G	1/-	2/-	2/-	—	—	1 0 0	21,000	Witwatersrdt.	Johannesburg
Johannesburg Exp...G	5 1/2	5 1/2	5 1/2	12/2 Nov. '93	—	1 0 0	30,000	Witwatersrdt.	8, Old Jewry-I
Jubilee...G	4 1/2	4 1/2	4 1/2	30/2 Aug. '94	—	1 0 0	100,000	Witwatersrdt.	29, Holborn Viaduct-I
Jumpers...G	1 1/2	1 1/2	1 1/2	30/2 June '94	—	0 10 0	92,672	Kimberley	19, Finsbury-circus
Kimberley...G	1 1/2	1 1/2	1 1/2	—	—	1 0 0	125,000	Kimberley	21, Drapers-gardens
Kimberley Rdpt...G	1 1/2	1 1/2	1 1/2	—	—	1 0 0	150,000	Witwatersrdt.	8, Old Jewry
Kleinfontein (N.G.)	1 1/2	1 1/2	1 1/2	—	—	1 0 0	150,000	Witwatersrdt.	110, Cannon-street
Klerksdorp...G	1 1/2	1 1/2	1 1/2	—	—	0 5 0	50,000	Jacobabad	4, Bishopgate-street
Koffyfontein...G	1 1/2	1 1/2	1 1/2	—	—	1 0 0	467,000	Witwatersrdt.	29, Holborn Viaduct-I
Langlaagte Est...G	2 1/2	2 1/2	2 1/2	12/2 June '94	—	1 0 0	100,000	Witwatersrdt.	21, Drapers-gardens
Do, Royal...G	1 1/2	2 1/2	2 1/2	5/2 Sept. '94	—	0 8 6	883,293	Lydenburg	110, Cannon-street
Libon-Berlyn...G	10 1/2	11	11	3/- June '94	—	0 10 0	100,000	S. Africa	19, Finsbury-circus

AFRICAN MINES—(Continued).

Name.	Closing Price, Aug. 10, 1894.	Closing Price, Aug. 3, 1894.	Par.	Latest Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Culpaards Vlei Est. Do, do, do.	8/- 9/- 3/4	9/- 1/2	1 0 1 0	6% Mar. '90 —	2 s. d. 1 0 0 0 10 0	319,003 25,000	Witwatersrdt. Witwatersrdt.	Warnford-court, I 8, Old Jewry.
Main Reef (New) G	7/6 10/-	10/- 9/8	1 0 1 0	—	0 10 0 1 0 0	300,000 430,000	Witwatersrdt. Witwatersrdt.	8, Old Jewry. 4, Lothbury, E.C.
May Consol.G	8/- 9/-	9/8 1/2	1 0 1 0	—	1 0 0 1 0 0	430,000 146,000	Witwatersrdt. Witwatersrdt.	33, Cornhill, E.C.
May Deep Level G	9/- 10/-	10/- 1/2	1 0 1 0	—	1 0 0 1 0 0	100,000 200,000	Mashonaland Mashonaland	8, Old Jewry, E.C.
Mashon. Agency...G	1 1/2 1 1/2 pm	1 1/2 1 1/2 pm	1 0 1 0	—	0 12 6 1 0 0	79,889	Matabeleland	73, Basinghall St, E.C.
Mashon. Central...G	—	—	12/6	—	1 0 0 1 0 0	71,887	Witwatersrdt.	1, Crosby Square, I
Matabeleland...G	8/9 11/3	11/3 1/2	1 0 1 0	25% June '94	1 0 0 1 0 0	82,774	Witwatersrdt.	Warnford-court, I
Metropolitan (N) G	5 1/2 5 1/2 all	5 1/2 5 1/2	1 0 1 0	3% May '94	1 0 0 1 0 0	200,000	Witwatersrdt.	Warnford-court, I
Meyer & Osh...G	14/- 15/-	15/- 1/2	1 0 1 0	3/- Feb. '90	1 0 0 1 0 0	70,000	De Kaap	65, New Broad-street
Mines Trust...G	7/6 8/-	8/6 1/2	1 0 1 0	-1/4 May '90	1 0 0 1 0 0	240,000	De Kaap	8, Old Jewry, I
Modderfontein...G	12/6 15/-	15/9 1/2	1 0 1 0	—	1 0 0 1 0 0	400,000	S. E. Africa	Broad-street House
Mosambique...G	16/3 18/9	18/9 1 1/2	2 0 1 0	2/6 July '91	2 0 0 1 0 0	194,351	Namaqualand.	34, Leadenhall-bldg.
Namaqua...G	1 1/4 1 1/2	1 1/2 1 1/2	1 0 1 0	10% June '94	1 0 0 1 0 0	70,000	Witwatersrdt.	8, Old Jewry, E.C.
New Chimes...G	1 1/4 1 1/2	1 1/2 1 1/2	1 0 1 0	5% Aug. '92	1 0 0 1 0 0	195,000	Lydenburg	29-31, Holborn-viad.
New Clever Estate	1 1/4 1 1/2	1 1/2 1 1/2	1 0 1 0	5% Dec. '89	1 0 0 1 0 0	65,000	De Kaap	23, College Hill
New Cross...G	12/6 12/6	11 1/2 1 1/2	10 0 1 0	5% Mar. '94	10 0 0 1 0 0	100,000	Transvaal	5, Copthall-buildings
New Edwin Brav	2/6 5/-	4/9 1/2	1 0 1 0	20% July '94	1 0 0 1 0 0	100,000	Witwatersrdt.	53, New Broad-street
New Gordon...D	4 4 1/2	3 1/2 3 1/2	1 0 1 0	—	1 0 0 1 0 0	230,000	Witwatersrdt.	2, Drapers-gardens
New Jagersfont	15/- 20/-	19 1/2 1/2	1 0 1 0	—	0 18 6 1 0 0	111,857	Griqualand W	Warnford-court, E.C.
New Lagerfont	4 4 1/2	3 1/2 3 1/2	1 0 1 0	—	0 18 6 1 0 0	111,857	E. Coast Africa	30-1, St. Swithin's-lane
New Louis D'Or...G	4 4 1/2	3 1/2 3 1/2	1 0 1 0	—	0 9 0 1 0 0	43,335	Transvaal	21, Lombard-street
New Primrose...G	15/- 20/-	19 1/2 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	26, Budge-row, E.C.
New Richmond...G	4 4 1/2	3 1/2 3 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	1, Crosby-square
New Spies Bona	4 4 1/2	3 1/2 3 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Lydenburg	8, Old Jewry
N. Ophir Concess	2/3 2/9	2/9 1/2	1 0 1 0	15% June '94	1 0 0 1 0 0	160,000	Witwatersrdt.	4, Sun Court, E.C.
New Virginia...G	2 1/2 2/9	2/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	4, Sun Court, E.C.
Nigel...G	2 1/2 2/9	2/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	10, Moorgate-street
Nooitgedacht E. G	1 1/2 1 1/2	1 1/2 1 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	19, Basinghall-street
Oceana...G	1 1/2 1 1/2	1 1/2 1 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Oceana Developm	1 1/2 1 1/2	1 1/2 1 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Orange F.B.E...D	3 1/4 3 1/4	3 1/4 3 1/4	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Orion...G	1 1/2 2/3	2/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Otto's Kopje...D	1/9 2/3	2/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Paarl Central...G	18/- 20/-	20/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Paarl Ophir...G	—	—	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Pard's Mozambq	1 1/2 2/6	2/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Pigg's Peak, New G	1 1/2 2/6	2/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Potchefstroom...G	18/3 21/3	18/3 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Princess Estate G	14/- 15/-	15/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Randfontein...G	6 1/2 6 1/2	6 1/2 6 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Read Mines...G	6 1/2 6 1/2	6 1/2 6 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Rand's Drift...D	6 1/2 6 1/2	6 1/2 6 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Robinson...G	6 1/2 6 1/2	6 1/2 6 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Roodenport Un. G	2 1/2 2 1/2	2 1/2 2 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Salisbury New...G	2 1/2 2 1/2	2 1/2 2 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Shabi...G	27/- 28/-	29/- 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Silver...G	2 1/2 2 1/2	2 1/2 2 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
Simmer & Jack...G	2 1/2 2 1/2	2 1/2 2 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
S. A. Gold Trust...G	25/- 27/6	28/9 1/2	1 0 1 0	—	1 0 0 1 0 0	160,000	Witwatersrdt.	110, Cannon-st., E.C.
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S. A. Gold Trust...G	25/- 27/6	28/9 1/2						

OUR CITY ARTICLE.

FRIDAY EVENING.

THE MINING MARKET.

A dull opening.—Chartered still improve.—A satisfactory close.—Land, Gold, and Diamond shares firm.

A FULL compensation for the dullness occasioned on Tuesday by the holiday on the preceding day is to be found in the highly improved state of affairs obtaining at the close of the week in the Mining Market, which—especially the South African section of it—is distinctly firm. On Tuesday one or two mines were favoured with attention upon satisfactory reports, among them being Crown Reef and Heriot. In other directions the Rand shares were rather irregular, the falls and rises nearly counterbalancing. The Land section became extremely demoralised. Chartered and Bechs. led to the downward movement, and the others, almost without exception, followed. Diamonds were in the same depressed condition, De Beers falling, and Jagers remaining stolid. Indians were pretty firm, but not over active. In other directions of the Miscellaneous market there were a number of doubtful changes, and the tone was very uncertain. By Wednesday, both departments of the mining market had fully got over the sleepiness engendered by the holidays. All sections of South African shares participated in the livelier tone. Among gold mines, the dividend-paying group were great favourites, and in the majority of cases there were distinct advances. Diamonds, too, were better than on the previous day. Jagers moved up $\frac{1}{4}$, and De Beers were distinctly better in tone. But the principal improvement was in the Land quarter, where a marked contrast was offered to the depression of the previous day. Chartered rose 1s. 6d. and closed firm, while Bechs. and other kindred shares displayed a much more hopeful characteristic. Miscellaneous shares were somewhat quieter. Americans and Indians are dull. The hardened tone manifested in the market after the holidays reached its acme on Thursday, when in all parts of the South African market there was activity and firmness. Rand shares rose *en masse*, the advances being greatest with the more solid classes of shares. Here there was hardly an exception to the general tendency to higher prices. To complete the satisfactory state of the market Lands and Diamonds followed in the same direction, all the more important shares in both departments gaining considerably. There was no close correspondence between the South African and the Miscellaneous sections. In the latter section there was a return to the lifeless placidity ruling a short while ago. Indians were especially glum. The only business worth recording was transacted in Australian shares, where there were one or two changes for the better. Taken altogether, the markets were much more hopefully disposed at the close than at the beginning of the week.

British Mines.

The move in tin has given an upward tone to our market, and although the volume of business is still small, there is no longer any particular desire to sell, and in some instances the low prices now ruling have attracted the attention of speculators. Satisfactory progress is being made at Dolcoath in forking. Killifreth is firm at 60s. There has been very little doing in Carn Brea since the meeting, but the outlook is good, and at the quoted price this is one of the finest speculations in the county. The mine is now fully supplied with power for driving 10 boring machines. Tincroft are steady at about £10, and Wheal Grenville very firm at 16 $\frac{1}{2}$ bid.—Risen: Carn Brea, 10s.; Dolcoath, £3 10s.; Killifreth, 2s. 6d.; Tincroft, 5s.; and Wheal Grenville, 10s.—Fallen: Blue Hills, 2s. 6d.; Cook's Kitchen, 1s.; West Kitty, 2s. 6d.; Wheal Agar, 2s. 6d.; and Wheal Kitty, 1s.

South African Shares.

Holiday influences continued to affect the South African market on Tuesday, and the shares were exceedingly irregular. Heriot, upon a satisfactory return of 4130 ounces, rose $\frac{1}{4}$. Crown Reef advanced $\frac{1}{4}$ on a crushing for July of 10,620 ounces. Rises of $\frac{1}{4}$ also took place in Geldenhuis Estate, Geldenhuis Deep, Rand Mines, and Langlaagte. The other rises were to the extent of $\frac{1}{4}$ in Simmer and Jack, $\frac{1}{4}$ in Village Main Reef, and of 3d. each in Kangarilla and Burma Ruby. Recessions to a small extent took place in Chimes and Cities. Land shares were undeniably flat. Chartered after the recent rapid rise dropped $\frac{1}{4}$, Bechs. sympathetically declining to the same extent. These shares dominating the Land section brought about a general relapse, which affected Mozambique, Zambesia, Exploring, and Silati. Diamonds were exceedingly dull. De Beers fell $\frac{1}{4}$, while Jagers closed unchanged. It was not until Wednesday that the market recovered from its holiday idleness. The satisfactory figure of most of the July returns gave a satisfactory impetus to prices. The more solid investments recorded substantial advances. Especial strength was exhibited by Heriot, which gained no less than $\frac{1}{4}$ to 5 $\frac{1}{2}$. Ferreira and Geldenhuis Deep were $\frac{1}{4}$ better in each case, and Rand Mine $\frac{1}{4}$ to 8 $\frac{1}{2}$; while Geldenhuis Estate sprang into demand, and rose $\frac{1}{4}$ to 5 $\frac{1}{2}$ buyers. A rise of 3-32 took place in New Primrose to 3 $\frac{1}{2}$, and advances of $\frac{1}{4}$ occurred in Consolidated Deep Level, Crown Reef, Simmer and Jack, Stanhope, United Langlaagte, and Wolhuter. In opposition to the upward movement, Knight's, United Roo-depoort, and Stanhope registered losses. Land shares were affected by the improved state of affairs. Chartered rose 1s. 6d. and closed hard at 33s. 9d., one or two satisfactory rumours overspreading the market. Bechs. and Zambesia brightened up in sympathy. Diamond shares were in keeping with the tone of the market. Jagersfontein gained $\frac{1}{4}$. The betterment noticed in the market immediately after the holidays culminated on Thursday in a spirited activity, and there was scarcely an exception to the upward movement. Rand shares remained exceptionally strong throughout the day. New Primrose and Meyer and Charlton were both in request, and rose $\frac{1}{4}$ on the day. Ferreira, Worcester, Pioneer, Geldenhuis Deep, Henry Nourse, Village Main Reef, and United Roo-depoort all moved up $\frac{1}{4}$. Jubileegained $\frac{1}{4}$, and Wemmer, Stanhope, Rand Mines, Jumpers, and Langlaagte Royal $\frac{1}{4}$, and several minor rises were registered. A reaction occurred in Heriot to the extent of $\frac{1}{4}$, while Sheba dropped 9d. Lands were strong. Chartered closed 3d. up on the day, and rises also took place in Oceans, Mozambique, Mashonaland Agency, and Zambesia. Explorings were $\frac{1}{4}$ to the good. The firmer characteristic of the market was made complete by a rise in Jagersfontein and De Beers, the former to the extent of $\frac{1}{4}$ and the latter $\frac{1}{4}$. To-day has brought about little change in this section of the market. Gold shares have not been quite so buoyant, but they are firm, and close steady. Diamonds remain strong, the recovery in Jagers being fully maintained. Chartered have been dealt in at 84s. buyers, and the other Land shares are quite in sympathy. There is every sign of a return to a highly satisfactory state of affairs during the next account.

Risen: African Gold Recovery 3s. 9d.; Afrikaner, 1s. 3d.; Aurora West, 1s.; Balkis Land, 3d.; Buffelsdoorn, 2s.; Consolidated Gold Fields, 2s. 6d.; Crown, 2s. 6d.; De Beers, 2s. 6d.; Durban, 2s. 6d.; Exploring, 2s. 6d.; Ferreira, 10s.; Geldenhuis Deep, 7s. 6d.; Geldenhuis Estate, 7s. 6d.; Henry Nourse, 2s. 6d.; Heriot, 10s.; Johannesburg Pioneer, 2s. 6d.; Jumpers, 2s. 6d.; Langlaagte, 2s. 6d.; do. Royal, 5s.; Mashonaland Agency, 1s. 3d.; Meyer and Charlton, 5s.; Mozambique, 1s. 3d.; New Jagersfontein, 22s. 6d.; New Primrose, 5s.; Oceana, 2s. 6d.; Ottes, 3d.; Princess, 2s. 6d.; Rand Mines, 2s. 6d.; Robinson, 5s.; Salisbury, 5s.; Simmer and Jack, 5s.; South Land (fully paid), 6d.; Spitzkop, 6d.; Stanhope, 2s. 6d.; Wemmer, 2s. 6d.; Worcester, 5s.—Fallen: Barrett, 3d.; George and May, 1s. 3d.; Gold Fields of Mashonaland, 2s. 6d.; May, 6d.; Moodie's, 6d.; Sheba, 1s.; Silati, 6d.; Transvaal Coal, 6d.; do. Estates, 6d.

Miscellaneous Shares.

There was little activity on Tuesday in the Miscellaneous market. Nundydroogs were inclined for firmness on the satisfactory return, while Balaghat and Gold Fields of Mysore were also somewhat better. On the other hand, there was some small weakness perceptible in Mysore West and South-East Mysore. Among the American mines there was an enquiry for Alaska Treadwell, Harquahala, and St. John del Rey. Springdale Gold and Caratals were a little off colour. Rio Tinto rose $\frac{1}{4}$ to 13 $\frac{1}{2}$. There was less activity in the miscellaneous department on Wednesday than in the Rand section. Indians were quieter than they had been for some time previously. Gold Fields of Mysore and Mysore Reef were 6d. better, while Kempinkote improved 3d. Mysore and Balaghat were somewhat off colour. American mines were quiet. Frontino and Bolivia advanced 6d., Golden Leaf and Springdale Gold the same amount, and Montara went up a further 6d. On the other hand, Golden Gate again declined 6d., while Don Pedro and Orita were also down lower. The Miscellaneous Market was in a quieter condition on Thursday. Australasians were the most conspicuous shares, there being enquiries for Brilliant Block, Broken Hill Proprietary, and Baker's Creek. Indians were almost motionless, and the changes recorded were mostly not improvements. Americans were not at all lively. Frontino and Bolivia again improved 1s. 6d., Montana rose 3d., and Elkhorn 6d. Alaska Treadwell, however, reacted $\frac{1}{4}$, while De Lamar, Springdale Gold, and Don Pedro dropped 3d., and Harquahala 6d.

Notwithstanding the excellent returns for the mines in the Indian and Miscellaneous Market, there has been no disposition to transact business during to-day. Indians have remained dull. Nundydroog closed at $\frac{1}{4}$, while Oregums remain steady. The one lively spot has been in Australian shares, where some buying has been transacted. Brilliants and Broken Hill Props. have had quite a flip. Beyond this there has been little doing. Risen: Alaska, 3s. 9d.; Australasian, 3d.; Baker's Creek, 1s. 3d.; Broken Hill Prop., 2s. 6d.; Champion Reef, 1s. 3d.; Cravens, 3d.; Day Dawn, 6d.; Elkhorn, 6d.; Frontino, 1s.; Glenrock, 6d.; Idaho, 3d.; Jay Hawk, 6d.; Kangarilla, 6d.; Kapanga, 3d.; Libiola, 2s. 6d.; Mason, 2s. 6d.; Mount Morgan, 3s. 9d.; Mysore Reef, 6d.; Nundydroog, 2s. 6d.; Pestarena, 3d.; West Argentine, 3d.—Fallen: Aladdin's, 2s. 6d.; Cape Copper, 1s. 3d.; Cumberland's, 3d.; De Lamar, 6d.; Don Pedro, 1s. 6d.; El Callao, 2s. 6d.; Golden Gate, 6d.; Golden Leaf, 6d.; Kempinkote, 3d.; Mosman, 6d.; Mysore, 2s. 6d.; New Queen, 3d.; Orita, 6d.; Palmarejo, 3d.; Quebrada, 1s. 3d.; Pinos Altos, 6d.; South-East Mysore, 3d.; Victory, 1s.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS, Monday, September 3.

STOCKS AND SHARES.

Continuation Days.	Ticket Days.	Pay Days.
Monday, August 13	Tuesday, August 14	Wednesday, Aug. 15
Tuesday, August 28	Wednesday, Aug. 29	Thursday, Aug. 30

REPORTS FROM THE MINES.

DEVON GREAT CONSOLS.—August 9: Monthly report. Wheal Anna Maria. Engine shaft. In the stope in the bottom of 110 fathom level east the lode is looking well, and yields 4 tons of copper ore and 8 tons of mundie per fathom. In the stope in the back of the 110 fathom level east the lode is also a good lode, worth 4 tons of copper ore and 10 tons of mundie per fathom.—Field shaft. In the stope in the bottom of the 130 fathom level west of the Field shaft the lode is yielding 9 tons of mundie per fathom.—Richard's shaft. In the stope in the bottom of the 103 fathom level east the lode is producing 6 tons of mundie per fathom.—Agnes' shaft. The stope in the back of the 103 fathom level west is producing 2 tons of copper ore and 3 tons of mundie per fathom.—Wheal Emma. Thomas's shaft. In the stope in the bottom of the 100 fathom level east the lode continues good, and is yielding 3 tons of copper and 4 tons of mundie per fathom. In the stope No. 2 in the bottom of the 100 fathom level east the lode also continues to look well, and is yielding 2 tons of copper ore and 18 tons of mundie per fathom. The stope in the back of the 100 fathom level east is worth 2 tons of copper ore and 12 tons of mundie per fathom.—Incline shaft. In the stope in the back of the 150 fathom level east the lode is producing 1 ton of copper ore and 5 tons of mundie per fathom. The stope No. 2 in the back of the 150 fathom level east is worth 2 tons of copper ore and 5 tons of mundie per fathom. In the stope in the back of the 112 fathom level west the lode is producing 1 ton of copper ore and 5 tons of mundie per fathom. The stope in the bottom of the 100 fathom level west is worth 4 tons of mundie per fathom.—New shaft. New south lode. The stope in the bottom of the 190 fathom level east will turn out 2 tons of copper ore and 7 tons of mundie per fathom. In the stope in the back of the 130 fathom level east the lode is yielding 1 $\frac{1}{2}$ ton of copper ore and 3 tons of mundie per fathom.—Watson's. Engine shaft. In the 172 fathom level east the lode is 4 feet wide, producing 2 tons of copper and mundie ore per fathom. In the 160 fathom level the lode is 3 feet wide, consisting of capel and quartz. In the new winze sinking below the 160 fathom level east the lode is 4 feet wide, yielding 6 tons of copper and mundie ores per fathom for length of winze, 9 feet. Bawden's winze below the 148 fathom level east is communicated with the rise in the back of the 160 fathom level, the lode at point of communication yielding 3 tons of copper and mundie ore per fathom. The men engaged in the rise in the back of the 160 fathom level east are removed to sink the new winze above referred to. As mentioned in last week's report by the boling of Bawden's winze, some valuable ore ground is laid open for stopping. In the stope in the back of the 172 fathom level east the lode is producing 4 tons of copper and mundie ore per fathom. The stope in the back of the 160 fathom level east is yielding 5 tons of copper and mundie ore per fathom. The stope in the bottom of the 148 fathom level east is worth 4 tons of copper and mundie ore per fathom. In the stope in the back of the 136 fathom level west the lode is yielding 4 tons of copper and mundie ore per fathom. We shall sample to-morrow 370 tons of copper ore for sale at Redruth on the 23rd inst.—I remain, gentlemen, yours faithfully, William Clemo.

FOXDALE.—August 2: Beckwith's shaft. At the 275 fathom level the shaft crosscut has reached the north part of the lode, but sufficient has not yet been done to ascertain its size and value. During part of the month, the end driving west at the 260 fathom level on the main lode, slightly fell off in value, but it has again resumed its previous productiveness. The end driving in the same direction on the north lode is producing occasional stones of ore, and the lode looks more promising than for some time past. The lode in the end driving east is yielding about 2 tons lead ore per fathom. Nothing

of importance having been discovered in the crosscut at the 245 fathom level, driven north immediately behind the east forebreast, it has been suspended, and the men put to drive the level on the south part of the lode. The lode in the end driving east at the 230 fathom level looks more encouraging, and is producing saving work for the dressing floors. There has been no change of importance in the driving of the 215 and 200 fathom levels during the past month. The ends driving east at the 185 and 170 fathom levels are yielding respectively 20 to 25 cwt. of silver lead ore per fathom.—Bawden's engine shaft. We are at present engaged cutting out ground for trip lodge at the 260 fathom level.—245 fathom level west. Nothing of value has yet been discovered in the crosscut driving north at this level.—Pott's shaft. During the current month we shall commence to cut out ground for trip lodge, &c., below the 155 fathom level.—W. H. Kitto.

LEADHILLS.—W. H. Paul, August 6: Brown's vein. Fair progress continues to be made in driving the 160 fathom level south of Jeffrey's shaft, vein now chiefly composed of quartz and stone, and I regret to say without any ore. The 160 fathom level north of Wilson's shaft is being advanced at a good rate, but vein still soft and unproductive. The vein in winze below the 145 fathom level south of Wilson's shaft is 4 feet wide, and will yield 40 cwt. of ore per fathom. In No. 1 stope over the 145 fathom level north of Jeffrey's shaft the vein will produce 30 cwt. of ore per fathom. In No. 2 stope over same level north the vein is worth 30 cwt. of ore per fathom. At the 145 fathom level driving north of Jeffrey's shaft the vein continues much of the same character showing good spots of ore occasionally, but not sufficient to value. No. 1 stope over this level north is at present producing 20 cwt. of lead ore per fathom. In the 100 fathom level driving south of Wilson's shaft the vein is $\frac{1}{4}$ feet wide, and without any change of note. The cross cut east at the 100 south of Wilson's shaft is going forward regularly, and ground therein continuing much the same. The ground in cross cut west at same level north of Wilson's shaft is rather hard. We expect to cut the vein at this point in a few days. Nos. 1 and 2 stopes over the drift above the 100 south of Wilson's shaft will produce on an average 60 cwt. of lead ore per fathom. No. 1 stope above the 85 south of Wilson's shaft is now yielding 120 cwt. of ore per fathom. The vein in stope below the 70 fathom level south of Wilson's shaft is 4 feet wide, worth 35 cwt. of ore per fathom. In the stope over the 50 fathom level south of winze and south of flat rod shaft the vein is yielding 50 cwt. of ore per fathom. The vein in stope below the 35 south of flat rod shaft will produce 50 cwt. of ore per fathom. There is no material change at Gripp's adit level driving south on Sarrowcole vein. All surface works are being pushed on regularly.

SOUTH FRANCES UNITED.—August 7: Retting report. To rise against Daubuz's shaft above the 245 fathom level, west of Pascoe's, by six men and three boys with a boring machine, at £7 per fathom. Lode worth £10 per fathom. A rise above the 245 fathom level west of cross course, by six men and three boys with a boring machine, at £7 per fathom. Lode worth £30 per fathom. Stope in back of this level west of rise is worth £30 per fathom. Stopping by 16 men, at 5s. per ton. A rise in back of the 226 fathom level west by six men, at £8 per fathom. Lode worth £11 per fathom. A rise in back of the 144 fathom level west of Grenville's, by six men, at £10 10s. per fathom. Lode worth £8 per fathom. Stope in back of this level is worth £11 per fathom. Stopping by six men, at 3s. 6d. per ton. Stope in back of the 134, west of Grenville's, is worth £10 per fathom. Stopping by nine men, at 5s. per ton. The 124 fathom level to drive west of Grenville's, by four men, at £8 10s. per fathom. Lode worth £15 per fathom. A winze sinking below this level by four men, at £10 per fathom. Lode worth £10 per fathom. Stope in bottom of this level is worth £11 per fathom. Stopping by six men, at 3s. 6d. per ton. Stope in back of this level is worth £10 per fathom. Stopping by four men, at 5s. per ton. Daubuz's shaft to sink below the 130 fathom level to be carried 14 feet long and 7 feet wide, by 18 men, at £30 per fathom. In our tribute department we have 60 pitches working by 160 men on tributes varying from 9s. to 13s. 4d. in the £, the standard for tin being £40 per ton.—William Hooper, John Opie, Richard Williams, William Henry Richards.

WEARDALE.—Report on Weardale Company's mines for week ending August 4th: Groverake. Loop level to take water from rake level. Sparry vein, better to work, but no ore to save. Adamson's drift west standing. Groverake cubic fathom stopes worth 14, 12, 14, 12, 14, 14, 14, and 12 cwt. per fathom. Groverake tribute ore for the week 24 bings.—Boltsburn. Stope above Watts level in vein worth 12 cwt. per fathom. Stope in north flat worth 14 cwt. per fathom. Stopes in south flat worth 20, 36, 18, 40, 34, 16, 18, 20, 18, and 20 cwt. per fathom.—Greenlawn. Natrass Gill drift stopes worth 14, 16, and 14 cwt. per fathom. Under stope down Lee's sump worth 30 cwt. per fathom. Greenlawn tribute ore for the week 13 bings.—Sedling. Driving in the 64 level east the vein is worth 8 cwt. per fathom. Stopes above the 64 level east worth 16, 18, 14, and 16 cwt. per fathom. Stope above the 64 level west worth 16 cwt. per fathom. Crosscutting north from the 56 level towards Dalton's rise for ventilation. The men have cut 4 feet in firm rider. Crosscutting north from 74 level to prove the ground there is no change. South vein, Stobb's drift east, vein worth 12 cwt. per fathom. Ore raised for the week 30 tons, ore dressed for the week 30 tons, ore and slag smelted for the week 132 tons, producing 70 tons of pig lead.

ALAMILLOS.—Mine report dated August 1: In the 85 fathom level driving west of Taylor's engine shaft worth $\frac{1}{4}$ ton per fathom, the lode has declined in value. The lode in the 160 west of the same shaft is large and open, and produces good stones of ore. In the 100 west of Judd's engine shaft the lode continues regular, but is rather small, and is valued at $\frac{1}{4}$ ton per fathom. The 100 east, worth $\frac{1}{4}$ ton per fathom, this is a large promising lode turning out some good ore stuff. Miguel's winze sinking below the 20 fathom level, estimated at 3 tons per fathom. The lode has greatly improved and is opening up good stopping ground. The stopes continue to turn out well. Surface works are kept on very regularly, and the machinery is in good working order. Estimated raisings for August 250 tons. The tributers returned 31 $\frac{1}{2}$ tons of ore in the past month.

FORTUNA.—Mine report dated August 1:—Canada Inco Mine The lode in the 150 fathom level driving west of O'Shea's engine shaft is chiefly composed of quartz and is large and open, valued at $\frac{1}{4}$ ton per fathom. In the 110 west of San Pedro's shaft the lode continues regular, but is poor at present.—Los Salidos Mine. The 200 east of Taylor's engine shaft is opening out a rich piece of stopping ground, and is valued at 2 tons per fathom. In the 105 east of Palgrave's shaft, worth $\frac{1}{4}$ ton per fathom, the lode contains some good stones of ore. Luca's winze below the 92 fathom level, valued at $\frac{1}{4}$ ton per fathom; good progress is being made in sinking. The lode is small.

LINARES.—Mine report dated August 1: Pozo Ancho Mine. In the 200 fathom level driving west of Peill's engine shaft the lode is poor, and the granite is hard for driving through. The lode in the 185 west of the same shaft has improved, and consists of quartz with good stones of lead ore, valued at $\frac{1}{4}$ ton per fathom. The lode in the 178 west of Warne's crosscut is disarranged and unproductive.—No. 276 winze sinking below the 178 fathoms level. The lode has become larger and turns out occasional stones of ore. The stopes continue to yield well. Surface works are kept on very regularly and the machinery is in good working order. Estimated raisings for August 200 tons. The tributers returned 152 tons of mineral in the past month.—Los Quiñentos mine, Taylor's engine shaft. The lode in the 185 east is small and unproductive, but looks more kindly. In the 165 east the lode continues regular and looks promising. In the 150 east, worth $\frac{1}{4}$ ton per fathom, the lode consists chiefly of spar, and turns out some stones of ore. The lode in the 130 east does not contain sufficient ore to value. Ginis winze sinking below the 150, the lode has failed in value. We have met with a large increase of water. Baranco's winze sinking below the 165, valued at $\frac{1}{4}$ ton per fathom. This winze is situated east of Taylor's engine shaft, and in advance of the 185 fathom level. Estimated raisings for August 150 tons. The tributers returned 57 $\frac{1}{2}$ tons of mineral in the past month.

ANGLO-MEXICAN.—Writing on June 14th with regard to the gold mine at San Jose de Gracia, the manager says:—The Muertos tunnel was advanced 100 feet during the week under report, making the total distance drifted 1281 feet. I have nothing of special interest to report to you in connection with our work in this tunnel. Progress during the week has been very satisfactory. South drift from upraise No. 14 from Jesus Maria tunnel was commenced during the past week, with a total progress up to date of 8 feet. The face of this drift carries ore of a fair grade. South drift from upraise No. 12 from Jesus Maria tunnel advanced 4 feet during the week, making the total length up to date 4 feet. The face of this drift carries ore of a good grade, an average sample taken yielding \$147 in gold per ton. As to width of the ore, I am sorry to say I cannot give you any data at present. During the past week 100 tons of milling ore were extracted and placed on the Patio dump, making the total quantity available for the mill 900 tons up to date. You will note from to-day's assay list that the quality of the first-class milling ore which is being extracted is excellent; a sample taken yielded \$901 gold per ton. All parts of the mine continue to look well, and work is progressing satisfactorily.

BAYLEY'S REWARD.—Sylvester shaft. For the purpose of sinking the main shaft a cistern is being fixed in the bottom of the chamber, so that the water coming from the drives will be converted therein, instead of running in the shaft. I have not been able to push this work on very rapidly, as we have had a fair quantity of water stored in the shaft, from which a little has been drawn when necessary, as at times there is not sufficient carted to keep the battery employed. The cistern we hope to get finished within the next few days.—South drive 220. We continued in a westerly direction 3 feet, total 78 feet, when not seeing any change beyond a slight increase in the water, we decided to suspend operations here and open out a drive south on the stone we passed through just previous to striking the large flow of water. West crosscut (Gorrie's lode) has been driven 13 feet, total 50 feet from shaft.—160 feet level. Have completed timbering and driven south on the course of the lode 7 feet, total 95 feet, and through to the winze sunk from 100 feet level. Lode is fully 5 feet thick, of the same character stone as the bottom level.—100 feet stopes. No change to report since my last, and continues to look well.—Beggelhole shaft. Stopes continue to yield very good stone indeed.—Everard shaft. South drive driven for a week 7 feet, total being 80 feet from shaft, and have yielded very nice stone. The lode at present is slightly pinched, but doubtless will shortly open out again.—Cockshott shaft. Have commenced to open out north at the 60 feet level, and during the week have obtained some splendid gold, pieces ranging from a few dwts. to fully 15 ounces in the solid stone. The lode at present is not looking quite so well owing to some intrusive rock making in the face, which will no doubt disappear as we continue.—Battery. With this we are still doing a good deal of fixing up. When the two stamps were started there was still a great deal of work to be done, which we have got on with as fast as possible. At present a water shaft is being sunk to fix the pump to supply the battery when the dam is full, also a tunnel driven from the dam to the shaft, which will have to be close timbered, and many other works unnecessary to mention. Small engine has arrived, and during the week has been fixed in position, so that we now hope to be able to treat some of the blanket sand; still, to work properly, we require the small valve telegraphed for last week, the previous one sent being too large, which, I trust, you have attended to and forwarded by post.—Second ten stampers. We have not yet commenced the erection of this, partly in consequence of not being able to get in the necessary bed logs and other timber required, the largest portion being cut in the bush. The very dry weather and poor feed, together with unsuitable water, has made our bullocks weak to such an extent that we have had to send them away about 60 miles, where there is better feed and plenty of fresh water for some little time, to recover. This has left us with only one team of horses to supply the mine with timber and the battery with water, leaving no time for extra work, and to employ teams at present prices is simply ruinous.—Crushing. The ten stampers have been run a small part of the week, when we could obtain water, but owing to the frequent stoppages for water and other work the week's run will be equal to five stampers constantly employed. Week's yield, 600 ounces gold.—W. H. Matthews.

CALIFORNIA MILLING AND MINING.—The following is from the manager's report from the mine for June, received August 4: Mill. Customs ore treated, 1318 2-3 tons; California ore, 216 tons; mill waste 81 1-3 tons; total, 1616 tons.—Mine. The Governor Adams at its junction with the new vein is still producing some very high grade smelting ore, from which I hope to clear some \$200 to \$300, but as before reported, the amount in sight is small. Total receipts for month \$4467.38; total expenses (exclusive of \$400 paid on account of rebuilding of mill), \$3853.93; profit for month \$613.45.—(Signed) A. L. Collins.

COROMANDEL.—Superintendent's report for fortnight ending July 14: Coromandel shaft. 420 feet level north driven 24 feet 8 inches, total from shaft 252 feet 10 inches. Lode same size as last reported—6 inches wide—but the assay is a little better, being 8 dwts. per ton, and the quartz occasionally carries visible gold. 420 feet level south driven for the fortnight 10 feet, total 118 feet 7 inches. There is a branch of quartz in the end 2 inches wide, containing a little free gold, but no assay has been made, the lode being too small to value. 320 feet level north driven since last report 11 feet 5 inches, total from cross cut 428 feet. The lode is a little smaller than last reported, being barely a foot wide, but the assay has improved to 1 ounce per ton.—Prospect shaft. 500 feet level north has been driven 22 feet 6 inches, the lode being small and of no value, and this level is being continued to effect communication with No. 1 winze under the 440 feet level. 500 feet cross cut west of shaft has been extended a further 15 feet, and is now 36 feet 8 inches from shaft. At 25 feet we intersected a branch of quartz 4 inches wide of very low grade. This cross cut is being continued.—No. 2 winze under 440 feet north. 6 feet 10 inches has been sunk here, and the total depth is 61 feet 4 inches. There is no lode in the bottom, and the remaining distance to the 500 feet level is 15 feet. 440 cross cut east driven during the fortnight 11 feet 9 inches, total 192 feet 4 inches. The ground, which was very hard and barren looking, has slightly improved in appearance since we restarted this drift.

DON PEDRO.—Mine report No. 11 for June; Gordon's shaft has been sunk 6 feet under the 60.—60 fathom crosscut. This has been driven for the month 10 feet. I am altering the direction of this towards the south as gradually as possible to facilitate future working. There has been no alteration in the lode since last reported on.—Adit. The work of cleaning out the adit, renewing some of the timber, and relaying the tramroad was completed on the 15th, since when the drifage has been pushed forward with all possible speed. The ground is dry, but requires close timbering. For the first 2 fathoms there was still clay floccan in the bottom of the level, but the end is now in soft sandstone. Driven from the 15th to the 30th 5 fathoms (30 feet).

EAGLEHAWK CONSOLIDATED.—The following fortnightly report has been received from the mine, dated Maldon, June 23: During the fortnight the contractors have sunk the Limited shaft a further distance of 26 feet, making the shaft 194 feet below the plat at the 820 feet level, and making the shaft 1020 feet from the surface. Five feet more to sink to make the well 25 feet below the 1000 feet level. The ground in the shaft is still hard to drill. During the fortnight there have been a good many small quartz leaders in the shaft. Not much metal in the leaders. The tributaries, Smith and party, are still on a little gold. They crushed a kiln this week of 15 tons, which yielded 26 ounces 16 dwts. Harris and party crush a kiln of 28 tons for the yield of 17 ounces 9 dwts. melted gold. Sampson and party have got the reef in their new shaft. Cannot get anything payable yet.—(Signed) Thomas Hodge.

GOLD FIELDS OF MASHONALAND.—Cotopaxi Mine: The following is an extract from a letter received to-day from the manager, dated 3rd July last, and written just after crushing has commenced at this mine:—The stuff that we are now crushing is from Wilson's No. 1 level, as taken from both drives east and west; a considerable amount of the same is low grade, but as no distinction was made between the ore taken from the drives referred to, I do

not look for very good results from the first crushings. At the same time, a cablegram was received from the manager announcing the result of the first month's crushing, as follows:—During the month of July mill crushed 375 tons, yielded 86 ounces of gold. Assay of tailings valueless. Details will be mailed in a few days.

KEMPINKOTE.—Superintendent's report for fortnight ending July 16: Garland's shaft. Sinking was resumed by hand labour on the 7th inst., and 5 feet have been sunk since then, making a total depth of 204 feet. The ground has become harder and the sink continues to be very wet. 183 feet south drive has been advanced 36 feet 6 inches, making a total length of 48 feet 6 inches. At 20 feet from the crosscut we drove for 15 feet through a cross course carrying gold to the value of 3 dwts. to the ton. The lode appeared again on the other side for the full width of the drive carrying gold to the value of 12 dwts. per ton. 183 feet crosscut west from the south drive was started on meeting the cross course, and was advanced 5 feet 6 inches, making a total length of 5 feet 6 inches. Having proved the position of the lode it was stopped and the machine put back again to drive through the cross course.—Henty's shaft. The bottom has now been fixed and the main rod is being lowered down. Owing to the shaft being of rather small dimension the work connected in fixing the pole becomes very difficult. 173 feet south drive has been advanced 15 feet 9 inches, making a total length of 93 feet 6 inches. The appearance of the end has much improved and has become fairly wet. The ground now is not so hard as it was.

MOUNT ZEEHAN (Tas.).—Manager's report for week ended June 26: Argent Section, main engine shaft, No. 6 lode intermediate level south stopes. Ore raised 50 tons good seconds, and a few cwt. firsts. Lode from 1 foot to 2 feet 6 inches wide of good milling ore.—No. 1 level south. Extended 11 feet, total 181 feet. Country is still broken, but softer.—Stopes. Ore raised 80 tons fair seconds. Lode from 1 to 2 feet wide of good seconds.—No. 2 level south stopes. Ore raised 45 tons medium seconds. Lode from 1 foot 6 inches to 4 feet wide.—No. 1 level north stopes. Ore raised 20 tons good seconds. Lode 1 foot 6 inches to 2 feet 6 inches wide of good seconds.—Cross cut west to No. 7 lode. Extended 6 feet, total 32 feet 9 inches. No change.—No. 3 lode No. 2 shaft, No. 1 level north. Extended 10 feet, total 54 feet 6 inches. Lode being narrow and poor have stopped this end for the present.—No. 1 level south. Extended 9 feet, total 37 feet 6 inches. Formation 5 feet wide, 1 foot 6 inches of which carries good ore. Concentrator has been run 58 hours and milled 190 tons seconds for 27 tons 10 cwt. concentrates, containing about 20 tons 17 cwt. lead, and 2111 ounces of silver.

MOUNT LYELL.—The London committee have received the following report from the Melbourne board for the week ending June 21: Engine shaft, 100 feet. The south drive has been advanced 7 feet, total 29 feet. Country schist and ironstone.—Intermediate, 75 feet. The cross cut west has been driven 10 feet, total 20 feet. The face for the last 5 feet has been in iron.—50 feet level. The south drive has been driven 5 feet, total 138 feet. The face is still very hard, being in pyrites and quartzite.—No. 1 winze. The winze has been sunk 5 feet, total 17 feet. Still in hard ironstone.—Stopes. The face north from the chamber has been worked as usual. The ore is considerably mixed at present, and requires a good deal of picking. The winze at the end of the west cross cut has been sunk 3 feet, total 12 feet. The vein of rich ore is still going down, but is somewhat thinner than it was, and is going away flatter.—No. 6 tunnel. The tunnel has been driven 19 feet, total 646 feet. The country is conglomerate and schist, which shoots well.—Ore raised. 211 bags weighing 9 tons 4 cwt. 2 qr. 6 lbs., containing 10,186 ounces silver, and 2 tons 5 cwt. 1 qr. 13 lbs. copper, or an average of 1076 ounces silver, and 244 per cent. copper.—Ore despatched. 240 bags weighing 10 tons 18 cwt. 1 qr. 17 lbs., and containing 13,218 ounces silver, and 2 tons 8 cwt. 13 lbs. copper.

MYSORE WEST AND MYSORE WYNAD CONSOLIDATED.—Tank Block. The mining manager in India reports by mail under date July 14:—North shaft, 350 feet level cross cut east driven 8 feet 3 inches, total 44 feet. There is no change here, except that all stringers of quartz disappeared four days ago, and the work is much harder.—South shaft. Sinking. Progress 6 feet 9 inches, total 413 feet 3 inches. For the last 10 days we have had a number of stringers of quartz, some as much as 3 inches broad. Water continues to pour in, chiefly from the hanging wall. It delays the work considerably. 354 feet level winze sunk 7 feet, total 22 feet. The width of the quartz here has varied with every blast, but the lode matter has been about 3 feet throughout. The quartz now is about 1 foot 6 inches wide at the south side and 4 inches at the north. The progress has not been very great, as the water keeps three men continually bailing. Hitches have been out, and a windlass is being erected, also a small donkey pump being put down. The average assay from seven samples is 3 ounces 10 dwts. 12 grains.—354 feet level stopes. This was stopped on the 7th inst., as the removal of the air pipes delayed the winze, and work could not be carried on without widening the drift. 400 feet level drive north from cross cut west driven 16 feet 6 inches, total 53 feet. The lode matter here has varied between 34 feet and 2 feet, and the quartz between 6 inches and 2 feet 6 inches. The quartz is now 2 feet at the top of the level and 9 inches on the bottom. The assay from seven samples is 1 ounce 8 dwts. 6 grains. Tailings sample from the pit assays 3 dwts. 18 grains.

NO. 7 NORTH-EAST QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, June 20:—During the fortnight Gonlon and party have crushed 70 tons from the stalls over No. 3 east level for 79 ounces 2 dwts. 15 grains of gold. Perry and party under the No. 3 level have from 4 to 9 inches of stone in the face. Carins and party (adjoining Perry's block) have from 3 to 10 inches of stone. In Shaw and Perry's ground over the No. 1 east level the reef is bunched. Total amount of stone raised by the various parties during the fortnight about 50 tons.—(Signed) H. Davis.

OORRGUM.—Superintendent's report for fortnight ending 16th July: Taylor's shaft. The 560 feet level south has been commenced and extended 28 feet. Lode 1 foot, value 1 ounce 10 dwts. 12 grains. Concurrently with this driving the top plat has been cut, and the men are now engaged cutting the bottom plat, which we anticipate will be completed by end of month, when sinking will be resumed with all speed possible. The 460 feet level south driven 24 feet 6 inches, total 421 feet 6 inches. Lode 6 feet 6 inches, value 16 dwts. No. 1 winze 460 feet level south sunk 8 feet, total 47 feet 6 inches. Lode 1 foot 3 inches, value 1 ounce 11 dwts. 14 grains. No. 2 winze 460 feet level south sunk 5 feet 3 inches, total 34 feet 6 inches. Lode 9 inches, value 2 ounces 3 dwts. 13 grains. No. 3 winze 460 feet level south commenced, sunk 3 feet 6 inches. Lode 6 feet, value 1 ounce 1 dwts. 19 grains. No. 4 winze 360 feet level south commenced, sunk 4 feet 19 grains. Lode 2 feet 9 inches, value 1 ounce 13 dwts. 18 grains. The level south from No. 4 rise in back of 280 feet level south driven 14 feet 9 inches, total 53 feet 6 inches. Lode 2 feet, value 2 ounces 14 dwts. 10 grains. Wallroth's shaft sunk 4 feet 6 inches, total 864 feet 6 inches. Lode 2 feet wide, value 5 dwts. 10 grains. The top plat is finished, and the men are now engaged excavating the bottom plat as the shaft is being sunk. The 760 feet level south driven 12 feet 6 inches, total 203 feet 6 inches. Lode 1 foot 9 inches, value 9 dwts. 19 grains. No. 1 winze 760 feet level south sunk 4 feet 9 inches, total 22 feet 9 inches. Lode 1 foot 6 inches, value 4 dwts. 8 grains. No. 1 winze 760 feet level north sunk 7 feet, total 22 feet. Lode 9 inches, value 3 dwts. 6 grains. The 660 feet level south driven 23 feet 3 inches, total 584 feet 6 inches. Lode 1 foot 6 inches, value 1 ounce 8 grains. No. 2 winze 660 feet level south sunk 3 feet 6 inches, total 54 feet 6 inches. Lode 1 foot 6 inches, value 7 dwts. 15 grains. No. 3 winze 660 feet level south sunk 4 feet 6 inches, total 40 feet 3 inches. Lode 1 foot value 6 dwts. 12 grains. No. 4 winze 660 feet level south sunk 4 feet 3 inches, total 22 feet. Lode 1 foot 6 inches, value 4 dwts. 8 grains. No. 2 rise 660 feet level south risen 1 foot 9 inches, total 26 feet 6 inches. Lode 1 foot 6 inches, value 13 dwts. 2 grains. Communicated with No. 2 winze from 560 feet level south. No. 3 rise 660 feet level south risen 8 feet 9 inches, total 33 feet 3 inches. Lode 1 foot 6 inches, value 9 dwts. 19 grains. No. 2 winze 560 feet level south sunk 3 feet, total 74 feet 6 inches. Lode 1 foot 6 inches, value 1 ounce 6 dwts. 8 grains.—Communicated. No. 3 winze, 560 feet level south sunk 1 foot, total 57 feet. Lode 2 feet, value

5 dwts. 10 grains. No. 4 winze 560 feet level south sunk 1 foot 9 inches, total 71 feet. Lode 2 feet, value 1 ounce 1 dwts. 19 grains. No. 5 winze 560 feet level south sunk 3 feet 9 inches, total 83 feet. Lode 3 feet, value 10 dwts. 21 grains. No. 6 winze 560 feet level south sunk 6 feet 9 inches, total 82 feet. Lode 2 feet, value 1 ounce 1 dwts. 19 grains. No. 7 winze, 560 feet level south sunk 3 feet, total 19 feet. Lode 1 foot 4 inches, value 1 ounce 11 grains. No. 7 winze, 460 feet level south sunk 3 feet 3 inches, total 91 feet. Lode 2 feet, value 1 ounce 12 dwts. 16 grains. The 360 feet level north driven 3 feet 8 inches, total 249 feet 3 inches. Lode 3 inches, value 8 dwts. 17 grains. Incline winze on point of fold in bottom of 280 feet level north sunk 11 feet 6 inches, total 42 feet 6 inches. Lode 2 feet 6 inches, value 9 dwts. 19 grains. The 215 feet level north driven 20 feet 3 inches, total 452 feet 6 inches. Lode 1 foot, value 10 dwts. 21 grains. Low's shaft sunk 8 feet, total 604 feet 10 inches. The 510 feet level south driven 14 feet, total 147 feet 9 inches. Lode 2 feet, value 2 ounces 3 dwts. 13 grains. The 510 feet level north from crosscut east commenced driven 4 feet. Lode 4 inches, value 2 ounces 5 dwts. 17 grains. Level south on branch from crosscut west 510 feet level driven 9 inches, total 16 feet 9 inches, quartz 4 inches. No sample taken, suspended. No. 3 winze, 430 feet level south commenced sunk 6 feet. Lode 1 foot, value 4 ounces 1 dwts. 15 grains. Probyn's shaft sunk 6 feet 6 inches, total 998 feet. The 950 feet level south driven 12 feet 9 inches, total 156 feet. Lode 3 inches, value 1 ounce 17 grains. No. 1 winze 950 feet level north sunk 1 foot 6 inches, total 42 feet 6 inches. Lode 4 inches, value 14 dwts. 4 grains. The 850 feet level south driven 7 feet, total 281 feet 6 inches. Lode pinched. No. 1 winze 850 feet level south sunk 4 feet 6 inches, total 62 feet 6 inches. Lode 1 foot, value 13 dwts. 2 grains.—Exploratory work. Wallroth's shaft. Crosscut west from 280 feet level south towards Munday's lode driven 20 feet, total 439 feet 6 inches. No change to notify.—No. 2 Trial shaft. The 250 feet level south driven 11 feet 6 inches, total 27 feet 6 inches. Lode 1 foot 6 inches, value 1 ounce 1 dwts. 5 grains. The 250 feet level north driven 10 feet, total 30 feet. Lode 2 feet 6 inches, value 1 ounce 22 grains. Throughout the mine 50 stopes are being worked, which are producing quartz of fair average value, all of which will be measured and reported on at the end of current month. During June 3833 tons of quartz were crushed, which produced 4060 ounces of gold. 4520 tons of tailings were treated, which yielded 1040 ounces gold, total return 5100 ounces of gold.

PUNJOM.—The following is the manager's report for May: August shaft. Bottom drive north. We had a change of ground in the early part of the month and good progress has been made since. The drive passed through a leader of quartz 6 inches wide bearing north, 20 west south, 20 east, or parallel to our main north and south lode. This leader which appears to enlarge as it extends north should junction with our east and west lode and so enrich it. The leader is full of mineral which, I find by testing, contains gold. We also passed through another leader (62 feet from shaft) 3 feet wide bearing east and west, or parallel to our east and west lode, on the course of which we have commenced to drive a crosscut east to intersect our main north and south lode. This drive should strike the lode at about the junction of our east and west lode with our north and south lode, and so give us greater facilities for opening up quickly. The prospects are encouraging. Distance driven during the month 36 feet 6 inches. Total drive 72 feet. Surface shaft No. 3 to go down and connect with our western stopes further west than No. 2 was sunk during the month 46 feet—36 feet of which have been sunk in quartz, most of the output is drawn through these shafts and save us the cost of winding.—No. 2 and 3 Trial shaft south. The two drives connecting these two shafts have been communicated giving better ventilation, so that stoping can now be commenced; sent to mill from these shafts 158 tons.—New shaft. Near the old workings we have had to stop this, as we cannot keep the water with buckets during the wet weather; when the weather gets more settled we shall resume sinking. We had good prospects when we stopped. West drive stopped for the present, miners refusing prices offered.—South drive. Have been driven 12 feet 6 inches. We have difficulty in handling the rock, it being so far away from the shaft. There is no change to notice. We are not far enough south to meet with the same run of quartz as in our trial shaft.—Mill Gully drive. Came into old workings, tapping the water which was dammed back; this caused the ground to run right through to the old pits on surface. We shall also have to wait for more settled weather before attempting to go through the run.—Stopes. There is no change to note in these; they are producing large quantities of stone. Estimated total output for the month 970 tons. Milling was carried on for 23 days, crushing 970 tons for 509 ounces 1 dwts. of melted gold. Six Berdan pans treated 16 tons concentrates and blanket washings for 27 ounces of gold. We are adding to stock.—Machinery. We were unfortunate in breaking the piston of the mill engine, and we had to send to Kevala Lunipur for a new one. Fortunately Mr. Jolly made a good one here, almost equal to the one received eventually from Singapore, and this enabled us to continue without much delay. Everything is now in good order. Rainfall showing 15 inches on the 9th, 14 inch fell in less than one hour, flooding the whole place for the time.—General. Everything coming under this head is having our attention and well in hand, and health of camp remains good.—Hong Kong, 28th June.

ROBINSON.—The following is the general manager's summary of operations of the company for June, together with statement of expenditure and revenue, as follows: Mine. Quartz mined 9222 tons.—Permanent works. Main incline shaft east sunk 35 feet—35 feet.—Development. Drives, 608 feet; raises, 235 feet; crosscuts, 238 feet; winzes, 15 feet—1126 feet; total 1161 feet.—Main incline shaft west. 5th level driving east on south reef, 72 feet; raises, 59 feet; crosscuts 44 feet. 6th level driving west on main reef, 43 feet; driving east and west on south reef, 109 feet; raises, 39 feet. 7th level driving east and west on main reef 88 feet; raises 74 feet; crosscuts 42 feet; winze, 20 feet. 8th level driving west on main reef, 9 feet; crosscut 48 feet.—Main incline shaft east. Sinking below the 7th level, 35 feet. 5th level driving east on south reef, 32 feet; crosscuts, 33 feet. 6th level driving east and west on main reef 77 feet; driving east and west on south reef, 84 feet; raises, 38 feet; crosscut 3 feet. 7th level driving east and west on main reef, 55 feet; driving east and west on south reef, 39 feet; crosscuts, 55 feet; raise, 25 feet; winze, 25 feet.—8th level: Crosscut, 13 feet; total, 1161 feet. Average width and assay value of south reef developed during month. Width 8 inches, assay value 5 ounces 13 dwts. 5 grains.—Mill. Stamps at work 70, net running time 29 days, tons crushed 9222, tons per stamp per diem 4.5, gold won from above 9074 ounces 17 dwts.—Chlorination and cyanide works. Gold won from own concentrates (by chlorination), 1148 ounces; bullion from tailings (cyanide process), 1794 ounces 9 dwts.—from own ore, 12,017 ounces 6 dwts.; gold from concentrates purchased (by chlorination), 2784 ounces 1 dwts.; total, 14,901 ounces 7 dwts.

CAPE COPPER.—Captain Henwood, June 30: Okeiep. The 130 fathom level east of north crosscut has been temporarily suspended to prove the ground northward from this point, consequently the men are put to drive north from the extreme forebreast. The rock in the 130 fathom level west of north crosscut produces occasional stones of copper ore. The 117 fathom cross cut north of the main east level is yielding stones of copper ore, but not sufficient to value. The rock in the 92 fathom cross cut, south of main east level, contains spots of copper ore. The ground in the 92 fathom level east, south east of 42 winze, is presenting spots of copper ore. The direction of the intermediate level between the 80 and 68 fathom levels has been altered from south east to south west to prove a branch of copper ore apparently making that way. The rock in the 80 north east of 49 winze is composed chiefly of quartz containing spots of copper ore. The rock in 48 cross cut south of main east level is spotted throughout with copper ore. Captain Henwood, June 30.—Trial Mines: Nababesp south. The shaft having attained sufficient depth for the 74 fathom level sinking has been suspended, and the men will start in a few days to fix the skip road, &c.; for the present they are engaged in stopping a few tons of mineral from the 59 fathom level.—Spectakel. In the early part of the month we started a winze below the 36 fathom level north-west of the new

shaft to prove the ground between this point and the slope in bottom of 36 fathom level north-west of No. 4 winze, and also for ventilation. The present bottom of winze is yielding 2 tons of copper ore per fathom. The slopes throughout the mine are producing on the average fully 2 tons of copper ore per fathom.—Copperberg. The slope in adit level east of No. 1 cross cut is yielding about 4 tons of copper ore per fathom, and the slope in adit level east of winze shaft is worth 2 tons per fathom.—Returns for June, Ockley, 2100 tons of 19 per cent.; Spectakel, 130 tons of 28 per cent.—Arrival at Swansea. The *Illovo*, with 1100 tons of ore and 810 tons of regulus.—Tilt Cove: East Mine. Captain W. R. Toms. Output for May, 5300 tons of 4 per cent. wet assay.

ALMADA AND TIRITO.—Fortnightly report to July 14:—Dios Padre. The lode in the 350 feet level driving north is massive, composed of quartz, red stained porphyry, and small veins of green ore of no value. The 250 feet level driving north has undergone no change during the past fortnight. The lode continues to yield small quantities of ore, and its composition is of a promising character. The lode in the 250 feet level driving south is composed of very hard quartz, yielding occasional stones of grey copper.—Stopes. The stope back of the 24 fathom level 100 lode is yielding good quantities of ore, assaying from 45 to 53 ounces of silver per ton. The stope back of loop tunnel and 12 fathom level at No. 2 winze are yielding small batches of good ore, giving up to 160 ounces per ton. Cruz Verde and Providencia stopes are returning ore in workable quantities.

ANGLO-MEXICAN.—Writing on June 27 with regard to the gold mine at San Jose de Gracia, the manager says: Main Tunnel. We have advanced 36 feet in this tunnel during the week, making a total length to date of 796 feet. There is nothing of particular interest to report regarding this work, except that it is progressing as satisfactorily as the nature of the ground will permit.—Muertos Tunnel. We have advanced 30 feet in this tunnel during the week, making a total length to date of 1341 feet. Progress in this part of the mine has been very slow during the past week or two, owing to the exceedingly bad ground we have been running through. We hope, however, soon to pass through the worst portion of this ground and will then make better progress. The mine in general is looking very well, all the new drifts, as far as run, showing a marked improvement. No. 15 upraise shows a breast of ore 4 feet in width, and averaging 10 ounces in gold per ton, with every indication of its continuing to improve.

NEW QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, June 22:—I beg to submit to you my report on work done in your mine during the past fortnight:—Underlie shaft. The underlie shaft has been sunk a further distance of 15 feet, making it 111 feet from No. 5 flat. The thin vein of stone has cut out during the sinking of the last 8 feet.—A little water is making in the face.—No. 4 south level stope: Stopping has been continued over this level, the reef averaging about 6 inches to 1 foot, with portions of blank ground. The ground continues hard.—No. 5 south level and stope. This level has been extended a further distance of 10 feet, with 10 inches of quartz in the end of level. Stopping has also been continued. The reef is somewhat irregular and bumpy, varying from 3 to 14 inches. Judging from the appearance of the stone I think it has improved in quality this week. No. 5 north level has been extended a further distance of 12 feet, making a total distance of 208 feet from underlie shaft. A thin vein of stone has been cut during the last few shifts, about 3 inches in thickness. The ground continues hard.—No. 4 formation. No. 1 north level. Stopping has been carried on under this level, the formation varying in thickness from 3 to 9 feet. The reef is irregular, being from 3 to 9 inches in thickness. No. 1 south level has been extended a further distance of 16 feet, making the distance from the end of cross cut 108 feet. This drive shows a slight improvement during the fortnight. Several veins of quartz have been cut coming up from the footwall, about 3 to 6 inches in width, with 8 inches of quartz in the face of drive, showing a fair amount of mineral. Amount of stuff raised during the fortnight: Quartz, No. 1a level, 25 trucks; No. 4 south level, 208 trucks; No. 5 south level, 156 trucks; No. 4 formation, 125 trucks; total, 514 trucks.—(Signed) W. Henderson.

SUTHERLAND REEF.—Mine manager reports July 12: I returned by this week's coach, arriving late last night. Sinking of the main incline shaft has been proceeded with, and a further 5 feet completed, total 230 feet, but the miners have been taken off for a portion of the week, and engaged in putting in timbers. 150 feet level west drive 12 feet driven, making 73 feet in all. 150 feet level east drive 8 feet driven, making 48 feet in all. I will examine the rock, and send full report next mail. Headgear is now completed, and the carpenters are fixing the guides in the shaft.

SHEBA.—The following report has been received from the general manager for the month of June:—Mine. No. 4 level. We have commenced No. 28 winze and sunk 12 feet in good ore.—No. 5 level. The west drive has been extended 40 feet in very poor rock. A rise has been put up 13 feet to meet No. 28 winze, the rock being good at this spot also.—No. 6 level. The bottom of the west stope is still producing good ore. No. 27 winze has been commenced and sunk 5 feet.—No. 7 level. The west drive has been extended 18 feet, and No. 3 north crosscut 13 feet, both through low grade ore.—No. 8 level. The west drive has been pushed forward 24 feet in low grade ore, and the No. 2 north crosscut 24 feet 6 inches through poor rock.—No. 9 level. Five drives on this level have been extended during the month—the west drive made 17 feet in poor rock; the east drive 12 feet also in poor rock; the crosscuts show better ore; No. 1 north driven 32 feet, No. 2 north 9 feet, and No. 1 south 8 feet, all through good ore.—Edwin Bray. No. 2 north crosscut was driven 8 feet through poor slaty rock.—Annie's Fortune. In the south-west tunnel, which is being driven to meet the proposed incline shaft 5 feet 6 inches was driven, the rock being now of a promising nature, and highly charged with pyrites.—Low level tunnel. We have continued driving in this on three ends, and have made the following progress: From month westwards, 33 feet; from vertical shaft west, 37 feet 6 inches; from vertical shaft eastward, 25 feet; a total for the month of 100 feet 6 inches. Previously driven, 766 feet 6 inches; total to date, 867 feet. There remains a distance of about 250 feet before boring through from the month to the Sheba low level shaft.—Annie's Fortune. We have temporarily suspended milling from this quarry, but are commencing to sink a shaft in the best part of the ore body, and if improvement shows we shall recommence crushing.—Oriental. You will notice, no doubt, that the driving in the low level tunnel is much less than it was in May, although during that month we were taking up floor to get the required fall. This month we have been trying to force ahead, but owing, in the first place, to the vertical engine being not sufficiently powerful to hoist stuff and water, we were obliged to fix a steam pump, which we found of very little use to us, as there was scarcely ever sufficient steam to work the air compressor, pump, and engine (vertical) at the same time, thereby delaying either the hoisting or the drilling. In the second place, the very lamentable accident on the 10th inst. caused us considerable delay. We have now made some alterations and improvements in the boiler, and removed some of the men who were not competent to attend it, and have now more than sufficient steam for all purposes.

WENTWORTH EXTENSION.—Report dated June 30: East cross cut advanced 7 feet, total length 173 feet; no change. West cross cut advanced 10 feet, total length 108 feet; in hard blasting dolomite. Drive from Prospecting shaft No. 4 in 25 feet, and now following a north west course, showing alluvial about 3 feet thick. Samples show this to contain an average value of 2½ dwts. per ton, but very unevenly distributed throughout the wash.

A REPAIR strike has been made on the Eureka and Richmond claims, and we are informed that a ledge of extremely high grade ore has been uncovered on the first named, says the *Miner* B.C. News also comes to hand that the Elgin and Ivanhoe are likely to turn out a second Slocan Star. The ledge here is an uncommonly wide one, and contains a good percentage of shipping ore, but it is as a concentrating proposition that these claims will attract attention.

MINING IN CORNWALL AND DEVON:

NOTES ON WESTERN MINING, EDITORIAL AND OTHERWISE.

A VERY serious turn in the position of Cornish mining has been brought about by the unfortunate necessity for a 6s. call at Carn Brea. If it had been one of the mines where calls were chronic, where shareholders have been required to put their hands in their pockets alike when tin is high and tin is low, an extra shilling or two might have been discounted, but in Carn Brea the position is altogether different. A large number of the shares were bought at prices ranging between £50 and £60, and some changed hands at nearly £70. The holders have had no opportunity of realising their shares except at a very considerable loss, and have, therefore, been compelled to hold on. Up to the present time they have had some satisfaction in picking up dividends, though for the last year or two these have been infinitesimal when the amount of capital outlay is taken into consideration. Carn Brea has been a sore disappointment to the shareholders for some time, and the making of an almost unexpectedly heavy call must almost have exhausted the patience of many of them. Unless a marked improvement in the price of tin takes place at an early date the situation at Carn Brea may become very serious indeed.

THE careful analysis of the accounts presented at the meeting will show that the heavy loss has been the result of the extraordinary expenditure on new machinery, and that the £3200 on the debit side, all but between £400 and £500 is accounted for by the cost of the new air-compressor, so that the mine is now in an even better position so far as facilities for development are concerned than she has ever occupied before. The compressor is a fine piece of machinery, and when in full operation will drive 15 rock drills. It is only working at less than half its capacity at present, and the management can scarcely be expected, under existing conditions, to go in for a heavy outlay on additional rock drills.

CARN BREA's neighbour, Tincroft, has a much better record for the past 16 weeks, though it is only fair to point out that the profit has been made on arsenic and copper. Had Tincroft, like Carn Brea, to depend entirely on its tin, the credits would have been less by about £1600. Arsenic has recently been fetching a much better price, and the credit for the mineral at Tincroft for the four months was no less than £1250. The mine is opening up remarkably well, and appears to be improving at every important point.

At Dolcoath forking is progressing more satisfactorily than the pessimists had expected. The 400 is clear again, and the water is now some fathoms below that level. The great bulk of the water was in the 400, where there was a pool running right away to New East. Those who know the mine are somewhat anxious as to the condition in which the 412 will be found. Here there is a large amount of heavy timbering, which has, so it is said, for its base decomposed granite, and how this has stood the presence of water remains to be seen. The timbering of Dolcoath has always been carefully attended to by the agents, and we have very little doubt that things will be found in fairly good order.

THERE is a little improvement at Wheal Bassett. The 330 end west, which is being driven by boring machine, and has been poor for the last few fathoms, is looking much better. They are now sinking below the 230, where they have a bunch of tin in front of them, but the water difficulties are serious, and the work is necessarily slow. There is a fair quantity of payable ground now open, and the mine ought to be doing rather better.

THE action for alleged encroachment between Wheal Grenville and South Condurrow will be heard at the Truro Stannaries Court next week, and much interest is being taken in it throughout the county. Several witnesses will be examined as to the accuracy or otherwise of the plans, including Captain Arthur Thomas, Captain Henderson, and Mr. William Thomas, of the Camborne Mining School. It will not be surprising if the Vice-Warden suggests a reference of the dispute to the arbitration of some mining expert, a course which might well have been adopted in the first place.

ANOTHER EXHIBITION FOR SUNDERLAND.—In November of this year an exhibition, largely devoted to the marine, electrical, and engineering industries, will be held at Sunderland. The success of last year's undertaking has encouraged the promoters to this venture, and every effort will be made to ensure its being an adequate reflection of the commercial life of the district. From the long list of well-known firms who have already signified their intention of participating in the exhibition it will be seen that it takes place under the most favourable conditions. Nothing but a reproduction in full of the departments covered would adequately convey a notion of the completeness of the scheme. Among the sections will be marine machinery, electricity, construction, sanitation and ventilation, paints and colours, decorations, joinery, furniture, hardware, gas, paving, horticulture, smoke abatement, fuel, domestic appliances, foods, sports and pastimes, arts and sciences, carriages, and musical instruments. Thus it will be seen that the present stage in the progress of our industries will be pretty clearly indicated by the exhibition.

THE HIGHLAND MINE.—The ledge was discovered 10 years ago, in 1884, by Messrs. J. C. Rykerts, O. Olsen, and F. Cole, and was eventually sold by them for \$10,500. A good deal of work has been done at various times on this ledge, and the present proprietors, Messrs. Carter and Clarke, have further developed it so that its magnificent proportions can be plainly seen. The ledge consists of an almost vertical seam of galena, of which the strike is north-west and south-east and the dip south-west. It cuts the formation at an angle of 30°, thereby proving itself to be a true fissure vein. It outcrops on the north side of the Cedar Creek Canyon, and may be traced from the stream nearly perpendicularly upwards for 300 feet, and then it still further outcrops a considerable distance on the (comparative) flat at the top. Previous to Messrs. Carter and Clarke's acquisition of the property, work had been done upon it in the shape of a tunnel running in about 75 feet. This tunnel has on its right-hand side the footwall, but its breadth—some 5 feet—is entirely in the ledge itself. On the top, and probably 200 yards from the face in which the tunnel is driven, a small shaft was sunk on the ledge by Mr. Stevenson, which shows solid galena on every side. At present, about 50 feet above the tunnel, just where the ledge stands at the top of the canyon, a deep cutting has been made on it, showing it to measure about 7 feet in width, pure ore right through. Three hundred feet below this cutting the Libby tunnel runs in and cuts a splendid ledge, which there seems every reason to believe is the same as that in the Highland claim above. At any rate, sufficient is in sight to-day to prove that the property is an exceedingly valuable one. The ore is high grade. An assay, made lately, gave 55 ounces of silver and 70 per cent. lead. Of over 60 assays made some time ago the average was 43 ounces silver and 76 per cent. of lead. Besides this main ledge there are three others on the property, the chief of which is now being exposed in an open cut, and proves itself to be a valuable seam of some 40 inches in breadth. At present the property is only reached by a trail, but one could easily be run down from any part of the property to Alasworth by means of an aerial tramway. The mine is 1150 feet above the lake and about a mile from it (horizontally).—*The Miner*, B.C.

KABONGA MINING COMPANY (LIMITED).—The offices of this company are now at 70 and 71, Bishopsgate-street, E.C.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

MR. SAMUEL JOHN DAVEY, Dealer in Cornish Mine Shares, Redruth, Cornwall, reports under date of August 9 (4 o'clock) as follows:—We have had but little business in our market this week. To-day tone is firmer. Following are quotations:—Blue Hills, ½ to ¾; Carn Brea, 6½ to 6¾; Cook's Kitchen, ¾ to 1; Dolcoath, 63 to 65; East Pool, 7 to 7½; Killifreth, £2 19s. to £3 1s.; Polberr, 1 to 1½; South Condurrow, ¾ to 1; South Crofty, 1 to 1½; South Wheal Frances, ¾ to 1; Tincroft, 9½ to 10; West Frances, 1½ to 1¾; West Kitty, 5 to 5½; Wheal Agar, 1½ to 1¾; Wheal Bassett, 1½ to 1¾; Wheal Grenville, 16 to 16½; Wheal Kitty (St Agnes), ¾ to 1.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (August 9) as follows:—The mining market is firmer on the improvement of the tin standard and favourable result of the Tariff Bill, with an enquiry for most shares at present reduced prices. Closing prices:—Blue Hills, 7s. 6d. to 10s.; Carn Brea, 6½ to 6¾ s.p.; Cook's Kitchen, ¾ to 1; Devon Consols, 1½ to 1¾; Dolcoath, 63½ to 64; East Pool, 6½ to 7; Killifreth, 56s. to 57s. 6d.; Levant, 5½ to 6; Phoenix United, ¾ to 1; South Crofty, 1½ to 1¾; South Frances, ¾ to 1; South Condurrow, ¾ to 1; Tincroft, 9½ to 10, s.d.; West Frances, 1½ to 2; West Kitty, 5½ to 5¾; Wheal Agar, 1½ to 1¾; Wheal Bassett, 1½ to 2; Wheal Friendly, ¾ to 1; Wheal Grenville, 16 to 16½; Wheal Kitty, 8s. 6d. to 10s., x.c.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers, and Mining Share Dealers, Redruth, write under date of Thursday, August 9:—Although the amount of business is still very small, there has been a much better tone in the market, and a more hopeful feeling respecting tin. Prices are very low, and there is room for a considerable advance. Quotations herewith (four o'clock):—Blue Hills, ¾ to 1; Carn Brea, 6 to 6½; Cook's Kitchen, 3s. to 6s.; Dolcoath, 64½ to 65½; East Pool, 6½ to 7; Killifreth, 2½ to 3; Polberr, ¾ to 1; South Condurrow, 1 to 1½; South Crofty, 1 to 1½; South Frances, ¾ to 1; Tincroft, 9½ to 10; West Frances, 1 to 1½; West Kitty, 5½ to 5¾; Wheal Agar, 1½ to 1¾; Wheal Bassett, 1½ to 2; Wheal Grenville, 16½ to 16¾; Wheal Kitty, 7s. to 9s. Tin, £67½.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, August 9, 1894 (noon):—Prior to the holiday the markets were dull and idle, but on Friday last, at about the close, a few Americans came into demand. Since resumption of business a distinct change of tone has been apparent especially in railway sections, in which the record for the week is an unbroken list of advances. The feature in home rails is London and North Western, their gain in value amounting to 5 on the week as a result of their satisfactory dividend announcement. In order of amount the following also are better, viz.:—Brighton A, 1½; Sheffield A, 1½; Midland, 1½; South Eastern A, 1½; and Great Eastern, 1, besides others improved in greater or lesser fractions of 1. Notwithstanding that the Tariff Question in America is not definitely settled, the opinion appears to be held that it is on the eve of completion, and seemingly that, together with a prospect of cessation of the drain of gold from America, has conducted to the very general advance to be noted in American Railway shares. Here, also, there are no instances where declines are marked, whilst the following are higher:—Louisville, \$34; Denver Preference, \$2; Norfolk Preference, \$2; New York Central, \$1½; Ontario, \$1½; Erie, \$1; Milwaukee, \$1½; Union Pacific, \$½ to 1; Central Pacific, \$½; the rest of the advances ranging downwards from ¾ in Denver Common and Ohio First, to ¾ to ¾ in Atchison Ordinary. Canadians share in the general improvement, Pacifics being \$2, and Trunk issues from 3-16 on Ordinary to 1½ on Guaranteed.—Higher: In Mexican Rails, Ordinary are ¾, and First Preference 1½ up, but Second Preference are unaltered. Consols mark a further gain of ½. Colonial Government Stocks, &c., but little changed, but that little is on the favourable side.—Higher: New Zealand Inscribed and Queensland Inscribed, ½ each. Home Corporation Stocks, &c., continue in favour with investors, and again several distinct advances are recorded, without any of a contradictory character to put against them.—Higher: Bristol 3½ per Cent. 1, Manchester 3 per Cent. ¾, Liverpool 3½ per Cent. ¾ to 1, Birmingham 3½ per Cent. ¾, Bradford 4 per Cent. ¾, and Stockport 3 per Cent. ¾ to 1.—Foreigners: Russian 4 per Cent. are ½ easier, but that is the only instance of decline, whereas the following are higher, viz.:—Portuguese 3 per Cent. 1½, Brazilian 4 per Cent. ½ to 1½, Italian Rentes ¾, Spanish ¾ to 1, Trunks D ¾, Argentine 6 per Cent. ¾, and Egypt Unified ¾. Miscellaneous shares, even considering the two closed days, have provided a meagre total of transactions, but prices in most sections of the market have fairly well followed the general lead, showing a distinct majority on the side favourable to holders.

BANKS.—Business very straggling and small.—Higher: Fairs ½, Adelphi ½, and Imperial Ottoman ¾. No declines.

INSURANCE also very few transactions, also changes in prices few.—Higher: Commercial Union ¾, Lancashire 1-16 to 3-16, and Sea 1-16.—Lower: Liverpool and London and Globe ½.

COAL, IRON, &c.—A solitary mark in Bolckows fully-paid and two or three in Ebbw Vale complete all doing in this section. Higher: Cammells 1, Nantyglo pref. ¾, and A. Knowles and Sons ¾. John Browns are ¾ easier.

COTTON, SPINNING, &c.—No improvement to record; business all but nil, and prices still tend easy where any actual test of business is applied to quotations.

MIXES.—Without business here. De Beers are down ½, whilst Rio Tintos and Mason and Barry's quote 5-16 and ¾ higher respectively.

TELEGRAPHS AND TELEPHONES.—Telegraph Construction and Maintenance 1, National Telephone ordinary 1-16, and ditto third pref. ¾ higher. These are the only variations in prices, and no transactions are recorded here.

BREWERIES.—Allsops have chopped about, but not so widely as of late. On balance they are 2 down. Threlfall's, which have spurted recently, have lost ½ to ¾ from their recent advance. On the other hand, the following are higher:—Guinness 1, Farnham United ¾, Hardy's ¾ to 1, and Manchester ¾ to 1.

MISCELLANEOUS.—Hardly anything doing, except in Ship Canal Ordinary. The movement for conference to further interest in the undertaking, and induce business, has brought in some rise, but on the advance sellers have come in, and best prices are not maintained. On the week the Ordinary are ½, Preference ¾, and First Debentures ¾ up. Gas Light and Coke A are 3 to 4 up, also Suez Canal quote ¾. Northern Assets, 1s., and Manchester Trust 6d. to 1-16 lower.

LATER (4 P.M.).—Home rails are again in demand, in particular the "heavy" lines. Canadians have come into favour, notably Pacifics, which are \$2 up; Americans show firm, with a good general demand at better (in some cases substantially better) prices. Ship Canals rather easier, the rise having brought in sellers.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, reports as follows under date of August 9:—The most noticeable feature of the market is the strong rise in American shares, in which Canadians have participated. Home railways have shown strength with an increased business. Caledonian Deferred has risen from 43-9-16 to 44-7-16, North British from 38-5-16 to 39½, Glasgow and South Western from 105½ to 106½, Great North of Scotland from 94½ to 95, London and North Western from 173½ to 178½, Brighton Deferred from 155½ to 156½, Chatham 15-5-16 to 16, Midland from 159-5-16 to 160½, Sheffield Deferred from 27½ to 30½. Bank shares have come into demand. Bank of Scotland have risen from 339 to 341½, Commercial from 68½ to 69½. Clydesdale, after falling from 19½ to 19, have recovered

to 19½. Royal have receded from 235½ to 232. Insurance shares have maintained the recent rise, but with little further advance. Life Association have improved from 40 to 40½. Northern from 63½ to 63½. Guardian from 9½ to 9½. North British and Mercantile have declined from 36½ to 36½. Scottish American Investment shares have risen from 69s. to 70s. 6d. Scottish American Mortgage from 51s. 6d. to 53s. 6d. Broxburn Oil are 3s. 9d. up at 8½. Young's 6s. up at 20s. New Zealand and Australian Land 40s. lower at 88s. Edinburgh Street Tramways 1s. higher at 82s. 6d.

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HENRY BRIGGS, SON, AND CO. (LIMITED).—The annual general meeting of the shareholders of Henry Briggs, Son, and Co. (Limited) was held on Wednesday at Whitwood.—Mr. A. C. Briggs presided, and in moving the adoption of the report and the declaration of a dividend of 10 per cent., said things were very much better than he expected. The late strike was of such enormous magnitude and covered such a large area, that when it was finished those collieries which had been maintained in good order were able to reap a great benefit from the enhanced prices which prevailed, and which in many cases existed for three months after the strike was ended. They also had a large capital invested in industries and securities that were not dependent on the coal trade. He hoped the late compromise would lead to further friendly agreements, and would result in steady trade. In taking the risk of the state of trade as the owners had done—and he thought they had taken an unprecedented risk—the directors had resolved to keep in hand as much money as would enable them to pay a respectable dividend, even if the coal trade proved unfavourable. That was one of the reasons why they had not proposed a larger dividend, which they admitted they might have paid if they had deemed it advisable to do so. There was another consideration. They had facing them an Eight Hours Bill for miners, the result of which must be a great increase in the cost of raising coal. He thought the likelihood was that the Bill would pass, and therefore they considered it reasonable that they should act cautiously, and hold a good sum in reserve until they knew what the effect of the Bill would be upon them as colliery owners. One result of the strike last year was to decrease their net sales by no less than £51,000; but on the other hand, they had been able to save £45,000, so that actually they were only £6,000 worse off than the year before. He need scarcely say that the greatest saving of all was in the item of labour, as wages had gone down by over £30,000. They had saved on every item of expenditure excepting that of rates and taxes.—Mr. J. Fairbank seconded the motion, which was carried unanimously.

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FIRST IMPRESSIONS OF THE MURCHISON GOLD FIELDS.

By W. G. GIBSON, M.E.

On arrival at Cue, which is the official centre of the field and seat of the Warden and police authorities, the idea conveyed to one who has seen the early days of the Barrier Ranges silver field is that it closely resembles Silverton and Broken Hill in their primitive stages, and has a further similarity in its insanitary state, there being a large number of fever cases. The doctors are in proportion to their numbers, the chief sufferers there being now two out of five laid up. The climate is almost precisely similar to that of the Barrier Ranges, and at this season is very pleasant. The country for many miles round is absolutely timberless, with the exception of mulga and bush similar to that found on the Barrier, so that whatever is required for mining purposes must be imported. Water on the surface there is none, but in the town are two Government wells, from which a fair supply is obtained and sold at the reasonable rate of 1d. per head of consumers per day, and 3d. per drink for horses. Camels are not allowed to water here. In some of the mine shafts which have got to water level a potable quality is found, and the quantity promises to be considerable with pumping machinery at work. On account of the excessive delays and uncertainties of carriage from the coast machinery arrives in piecemeal, and there is generally a missing link in each arrival that renders the whole useless till the link turns up. Boilers have been on the way for months, and have not yet reached their destination. The crushing plants at several mines would have been already at work but for this cause. It has required 40 horses to drag a 6 ton boiler over certain patches on the road, where 20 camels had to give it up.

It is clear that until railway communication has been opened the field will remain in a very imperfectly developed state, and if the Government wish to forward the interests of the colony a railway must be laid. I have seen enough to convince me that the country contains mineral wealth enough to fully justify the making of a line at once. The present cost of carriage from Geraldton is £24 per ton, heavy boilers and machinery reaching up to £40 per ton, whilst the interminable delays are nearly as bad as the excessive cost.

When once the gold field has been fairly entered on the country is highly mineralised. It is mostly flat, with gentle undulations, and occasionally presents hilly ridges rising to 100 or 200 feet above the flat. A great part of the surface is covered with shattered ironstone sometimes in rounded nodules and broken quartz, with big quartz "blows" and ironstone "blows" interspersed. Some are auriferous, and under or near them have been found some of the best lodes.

Round the township of Cue many gold leases have been taken up, and the general appearance of the ground and the lode material is such as to make one feel that any previous experience he may have had on gold fields has to be extended to a variety not before met with. The line to the north-north-west, along which are numerous claims up to a distance of some 4 miles, yields in almost every instance a snow-white quartz, carrying in many places nice gold. In the quartz and casing of the lode is a large quantity of kaolin or china clay of a pure white colour, giving the heaps of material at surface the appearance of dazzling mounds of snow.

The enclosing country is mostly a rotten granite of a friable nature, and brown-grey colour easy to work. The claims are too numerous to mention in detail, but embrace the Cue One, the Rising Sun, the Lady Mary, the Maori, &c., extending on to the Leviathan, Kangaroo, &c., with their north and south extensions, &c. The most prominent feature about that part is the large white outcrop of the Leviathan, which on the spot seems to run a course north-north-west, but takes a bend more easterly. The underlie is westerly, and the lode large and well-defined. From many of the lodes a considerable quantity of gold has been got by hand dollying, and after the best has been removed in that way in cases where the stone has been battery treated, the yield of gold has been from 1½ to 4 ounces per ton. A large amount of gold has been got by dry-blowing on several spots near the township, but these seem exhausted now.

About four miles to the south-west of Cue is the Four-mile township, close to which are the Day Dawn, the Trenton, and Rubicon Mines, with many others, but these named are those best developed. The Day Dawn is the most advanced on the field, and contains a splendid reef of blue quartz, under a large outcrop of blue auriferous quartz. The lode is exceedingly well defined, with excellent walls, as seen in an open working from which a large quantity of ore has been extracted by underhand stoping to a considerable depth. The strength of the lode at the lowest depth in the stope and shaft is quite 8 feet of compact clean quartz, and in a trench cut across the outcrop it shows a width of 18 feet. The whole of this large outcrop is fit to put through the battery. The crushings are said to give a yield of gold of 1 ounce 5 dwts. per ton, and the tailings to yield 9 dwts. The gold in the latter being quite free from copper or other objectionable ingredients can be easily recovered by the cyanide process. This great reef has on the outcrop a course of about north-north-west, but bends to some extent as it proceeds. The underlay is west and north at an angle of about 70° from the horizon. I have never seen a more compact or permanent looking reef than that of the Day Dawn. The Trenton is about 1½ mile west from the Day Dawn, and has a reef 2½ to 3 feet, inclining to widen as it goes down. At 100 feet the quality of the stone is very good, and a considerable amount of gold was dollyed out by the original owners. There is a pile of 500 or 600 tons of grass ready for treatment, but Mr. Bray, the manager, is sorely tried by the non-arrival of his crushing plant, otherwise it would have been at work by the end of this month of May. The Rubicon is a good mine also, but I had not time to examine it.

The country rock about the Four-mile district seems a sort of decayed diorite. Near the Dead Finish, a small township about 10 miles from Cue and eight from Four-mile, are situated some good claims, the most advanced of which are the Fortune of War and the United Victory, whilst many other promising claims are being worked and prospected. The Fortune of War would have been at work before now crushing good stone but for the delay in the arrival of the steam boiler. There is a large pile of stone at grass of very good looking quality. The United Victory, which has recently changed hands, and is apparently under suspension for reconstruction, has a nice lode of very good quality, which the manager informed me went over 5 ounces per ton. Some of the quartzose sandstone, of which the reef is partly composed, and which showed no gold to the eye or magnifying glass, yielded on being crushed and washed by myself quite 4 ounces per ton. There is a small three stamp battery on the ground, which seemed to work pretty well, but I should doubt if all the gold is saved by it. The general nature of the country round the Dead Finish district is such as well merits careful prospecting.

One of the most important points which I have visited is the Island Lake Austin, about some 18 to 20 miles from Cue. The formation is slate, and the island is about 4 miles long by 2½ wide. Several quartz reefs run through it longitudinally, and some of the claims yield very rich gold in pockets, whilst those towards the south end seem to have the gold pretty equally distributed through the stone. There is also a good deal of alluvial gold got by dry blowing and washing, at a depth of from a few feet to 30 feet. Altogether the island is to be regarded as a very rich spot. It is surrounded by salt flats, which in a wet time are covered with water, and give the hilly ridge the appearance of an island, whilst the part on the opposite side of the flats is called the mainland, where, I understand, there are some good reefs, carrying gold in bunches, but I have not yet visited it.

So far as I have seen of the field, which is not a fiftieth part prospected, I am disposed to think favourably of it, but cheap means of communication with the seaboard are essential to its development. There is only one mail in and one out weekly, and the postal arrangements are of the most primitive and inconvenient description.—*Adelaide Observer*.

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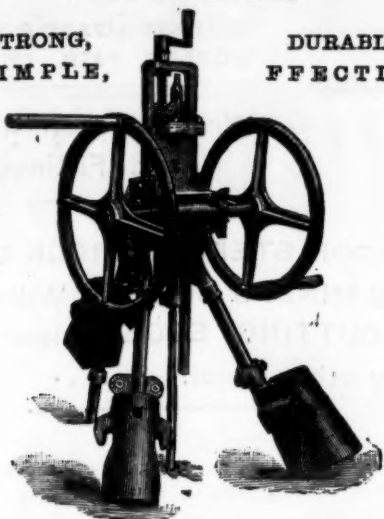
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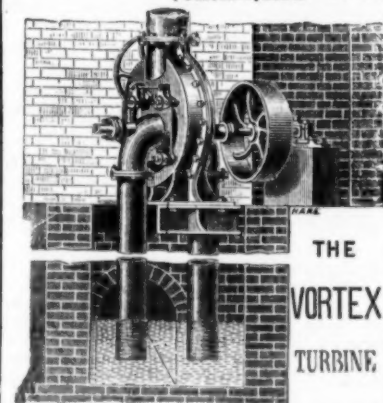
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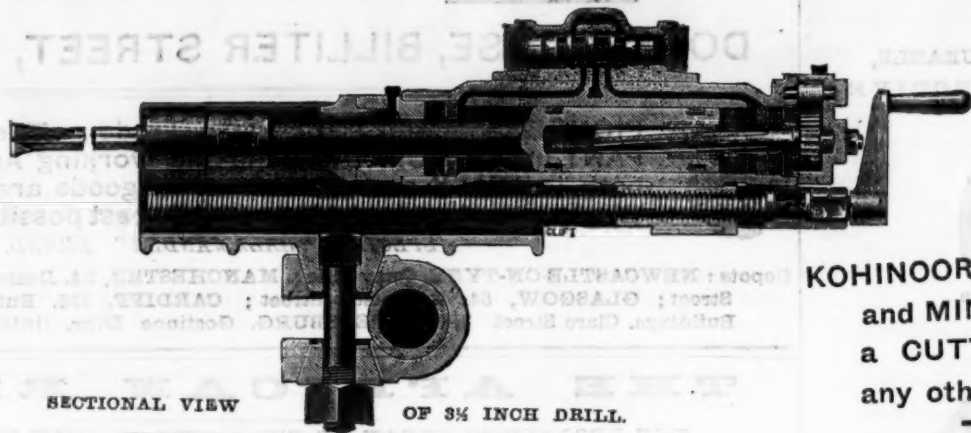
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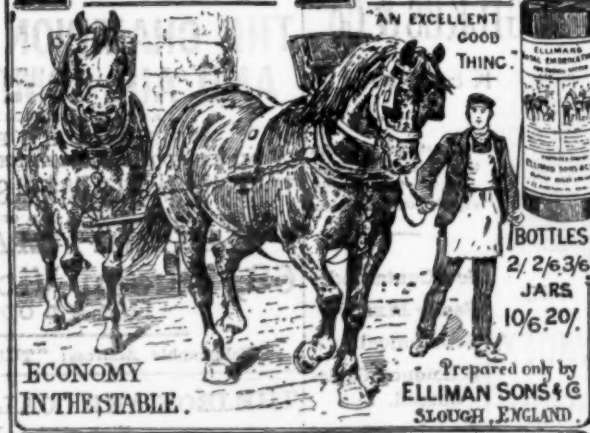
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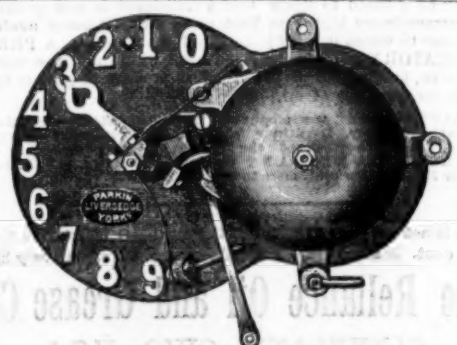
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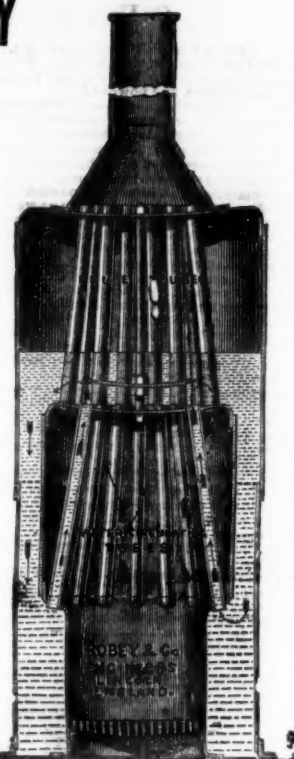
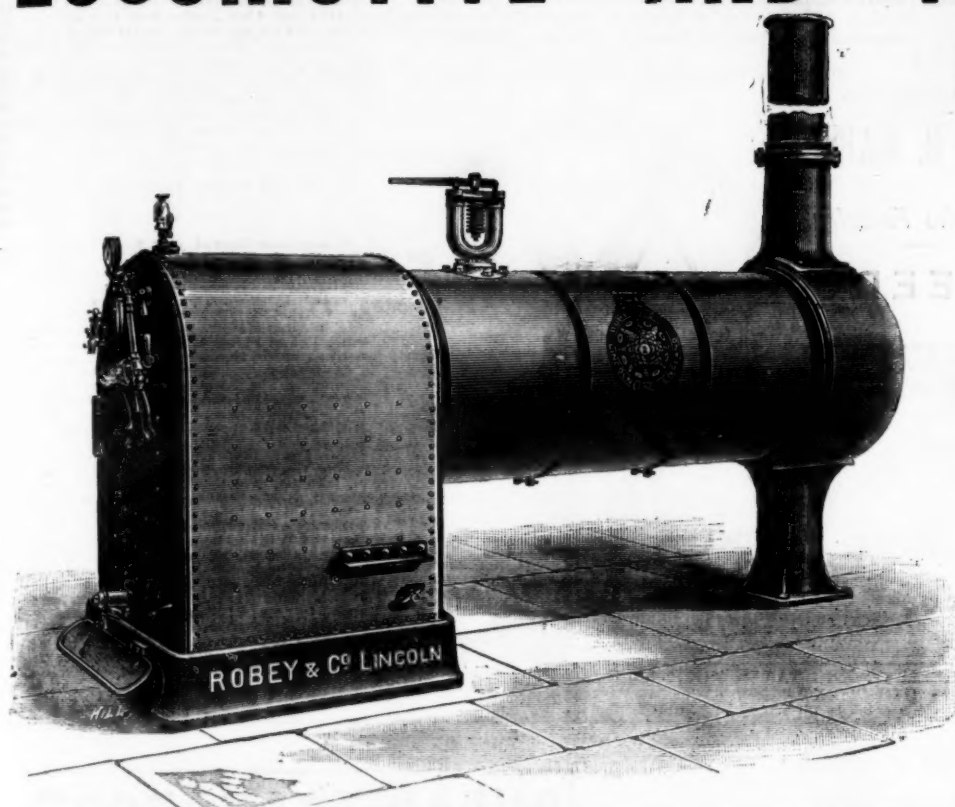
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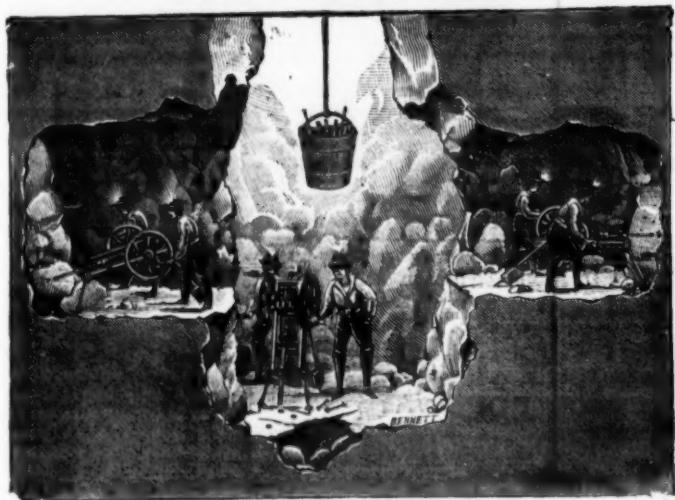


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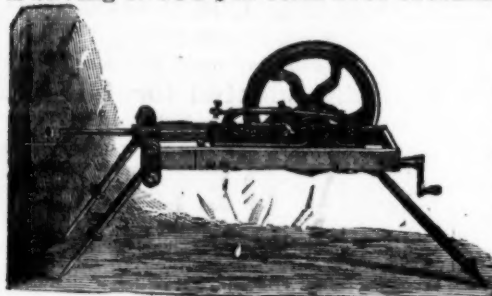
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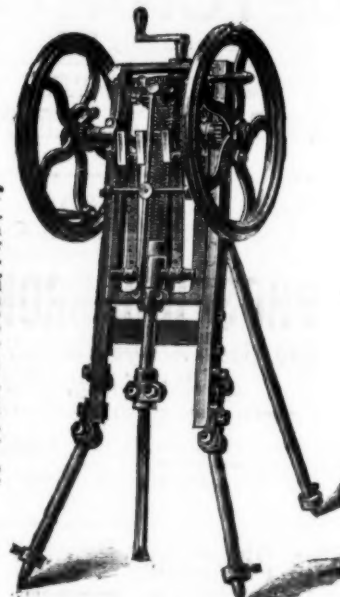
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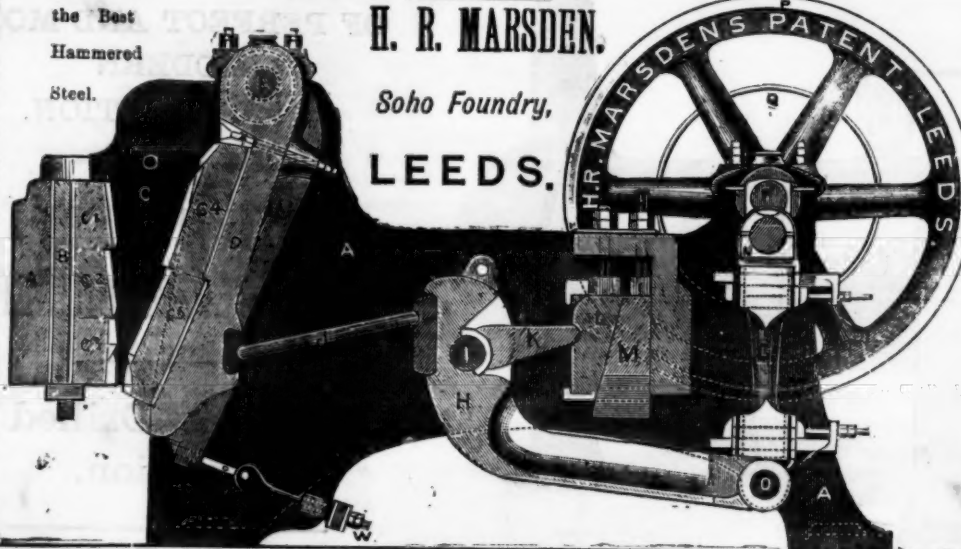
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